



ASX CHESS Project

Release 1 CS Services Rules Review

External Assurance Report – Core Systems

25th November 2025

Final Report



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This report is solely for the purpose set out in the Scope Section (Appendix 01: Detailed Scope) and for ASX Limited information and is not to be used for any purpose not contemplated in Appendix 01: Detailed Scope.

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01 Executive Summary



Executive Summary (1/3)

Context

Purpose

This report has been prepared by KPMG at the request of ASX Limited to provide primary assurance over the CHESSE Project Release 1 Clearing Services solution. Specifically, it evaluates compliance with Rules 2.1.4(a)(b)(c) and paragraphs 2.3.1(2)(b)(c) of the Australian Securities and Investment Commission's (ASIC) Clearing and Settlement (CS) Services Rules, as prescribed under Rule 2.4.5. Rule 2.4.5 requires an independent external assurance report be prepared before implementing material changes to core systems.

Background

The Clearing House Electronic Subregister System (CHESSE) Project is the Australian Securities Exchange (ASX)'s initiative to modernise CHESSE, which underpins Australia's cash equity market. The Project aims to enhance resilience, support scalability, enable innovation, and align with global standards.

To reduce delivery risk, ASX has adopted a staged implementation approach:

- **Release 1 Clearing Services:** Focused on clearing functionality.
- **Release 2 Settlement & Subregister:** Focused on settlement, subregister, and corporate actions.

ASX is currently progressing Release 1, which replaces the clearing component of CHESSE with the TCS BaNCS Market Infrastructure (MI) product. This release introduces Financial Information eXchange (FIX) messaging for trade registration across all Approved Market Operators (AMOs), including ASX Limited (acting in its capacity as an AMO), Chicago Board Options Exchange (CBOE), Sydney Stock Exchange (SSX), and National Stock Exchange of Australia (NSX).

In Release 1, the clearing solution has adopted international communication standards for trade capture, providing interoperability amongst AMOs. Building on functionality from Release 1, Release 2 is planned to deliver full technical interoperability for settlement and sub-register services with unaffiliated entities, as required by ASIC's CS Services Rules.

Regulatory Context

The CS Services Rules, set by ASIC under the Corporations Act, are designed to promote competitive outcomes, transparency, and fair access in a market where ASX is the sole CS Service Provider. Under CS Services Rules 2.1.4(a)(b)(c) and paragraphs 2.3.1(2)(b)(c), ASX must:

2.1.4

- (a) Ensure each core system meets the differing needs of users.
- (b) Avoid creating or raising barriers to access for its covered services.
- (c) Accommodate relevant international open communication procedures and standards.

2.3.1

- (2)(b) Facilitate technical interoperability with systems used by unaffiliated entities to access covered services, including through adoption of international standards.
- (2)(c) Design and develop core systems in a way that does not create or raise barriers to access by unaffiliated entities.

Interoperability

ASIC's CS Services Rules require ASX to design its core systems to support technical interoperability and adopt internationally recognised communication standards. In this context, interoperability means clearing and settlement systems across multiple venues can exchange information and process transactions seamlessly.

This capability supports trades to clear and settle efficiently, playing a critical role in fostering competition amongst market operators and clearing facilities.



Executive Summary (2/3)

Summary of Commentary

No findings or recommendations were raised, with the CHES Project Release 1 solution found to be in compliance with CS Services Rules 2.1.4(a)(b)(c) and paragraphs 2.3.1(2)(b)(c). This report provides commentary on the Release 1 solution compliance with CS Services Rules.

Clearing solution adopts the FIX international Standard

The Trade Acceptance Service (TAS) FIX Gateway provides connectivity between AMOs and CHES for clearing services. Historically, the TAS Gateway supported multiple AMOs through a proprietary interface known as the EIS.

Under Release 1 of the CHES Project, ASX is replacing EIS with the FIX 5.0 Service Pack 2 (SP2) Standard, an internationally recognised communication standard widely used in financial markets. The new TAS FIX Gateway enables connectivity between AMOs and the BaNCS MI product and supports real-time transmission of trade information for clearing.

The adoption of FIX Standard aligns with industry practice in Australia. For example:

- NSX's FIX interface uses the same specification FIX 5.0 SP2.
- ASIC's Australian Market Regulation Feed also uses FIX 5.0 SP2 for transmitting trading data.

Standardisation reduces the need for unaffiliated entities to develop proprietary interfaces or vendor specific integrations if they seek to become AMOs. To meet Australian market requirements, ASX has implemented extensions from the FIX 5.0 SP2 specification. These extensions are documented in the CHES Release 1 AMO User Technical Documentation and have been reviewed and approved by participating entities.

AMO requirements have been incorporated into the design of the Clearing solution

Requirements from AMOs have been formally captured through structured engagement across governance forums <Appendix 05>, including AMO working groups, bi-laterals with AMOs and the Release 1 Build & Test Forum. This process informed the design of the TAS FIX Gateway and clearing solution.

These requirements are documented in the AMO User Technical Documentation. Governance mechanisms remain in place to review and incorporate new requirements and defect fixes, supporting ongoing testing of the TAS FIX Gateway and clearing solution.

The TAS FIX Gateway is built on a modular architecture and represents preparatory steps in interoperability for the Release 1 clearing solution, providing a standardised messaging framework that supports consistent communication across AMOs and the clearing solution.

Executive Summary (3/3)

Summary of Commentary

ASX facilitates access to its clearing services through a transparent AMO accreditation process

ASX provides access to its clearing services through a published AMO accreditation process. The introduction of the new clearing solution has not resulted in material changes to this process, other than the requirement to use the FIX Standard for the revised TAS FIX Gateway, replacing the legacy EIS format. The adoption of TAS FIX Gateway removes the dependency on a proprietary interface.

The accreditation process is outlined on the ASX website and describes how an entity seeking AMO status can submit a formal application. Following submission, ASX conducts operational, clearing, and product service assessments, including mandatory system testing, before access is granted.

For Release 1, ASX is applying a documented re-accreditation process to confirm that AMOs and AMO software providers are ready to operate with the new TAS FIX Gateway and clearing solution. This process is described in the CHES Release 1 Industry Test Approach and supporting technical documentation and specifically relates to the AMO accreditation and AMO operational readiness testing phases.

Stakeholders, including AMOs and industry participants, have been consulted during the re-accreditation process. Feedback was considered in refining procedures and TAS FIX Gateway terms, with both feedback and responses published publicly.

Backward Compatibility during Release 1

Release 1 of the CHES Project offers an interoperable and equivalent service to all AMOs (i.e. all AMOs are offered an equivalent service via the FIX gateway). It does not deliver interoperable clearing, settlement and sub-registers which will be delivered in Release 2.

Release 1 provides continuity during the transition by using a Backward Compatibility interface, CHES Messenger, which converts FIX messages into the legacy EIS format for downstream settlement and sub-register processes.

This approach allows the clearing solution (BaNCS Market Infrastructure) to operate as a separate solution whilst continuing to interact with existing CHES settlement and sub-register functions through the backward compatibility interface. The interface performs message conversion required for existing CHES settlement processes until they are replaced in Release 2. This design supports continuity during transition and establishes the technical basis for future interoperability enhancements planned for Release 2, which will adopt ISO 20022 standards for settlement.

Testing for backward compatibility is performed by ASX and includes positive and negative scenarios to confirm correct message conversion. Industry regression testing is also being conducted to validate that clearing changes do not affect downstream settlement processes.

Stakeholders, including AMOs and industry participants, have been engaged throughout the testing process and provided feedback on test plans, sequencing and scenarios.

02

Summary of Commentary



Summary of Commentary

The summary table presents KPMG’s commentary on the assessment of CHES’s compliance to the CS Service Rules requirements.

Ref #	CS Services Rules	Commentary	Page
1.0	<p>2.1.4 Core Systems: A CS Service Provider must take reasonable steps to ensure that: (a) each of its Core Systems meet the differing needs of Users; and</p>	ASX has established governance and ongoing communication with AMOs through the AMO Working Group and the Release 1 Build and Test Forum. These engagement processes have provided a mechanism for ASX to collect and consider feedback on requirements, and AMO input has been incorporated into the design of the TAS FIX Gateway and Clearing solution.	10-11
2.0	<p>2.1.4 Core Systems: A CS Service Provider must take reasonable steps to ensure that: (b) none of its Core Systems create or raise barriers to access to its Covered Services; and</p>	ASX has implemented backward compatibility measures for Clearing Participants to minimise any technology change for them in the transitional period between the implementation of Release 1 and Release 2. These activities are intended to avoid creating new barriers to access for existing entities, supporting compliance with CS Services Rule 2.1.4(b).	12
3.0	<p>2.1.4 Core Systems: A CS Service Provider must take reasonable steps to ensure that: (c) any changes to its Core Systems accommodate relevant International Open Communication Procedures and Standards.</p>	ASX’s implementation of FIX 5.0 SP2 in the TAS FIX Gateway aligns with CS Services Rule 2.1.4(c) with departures designed to support specific operational requirements of the Australian market and do not introduce barriers to access.	13
4.0	<p>2.3.1 Non-discriminatory access: (2) A CS Service Provider must take reasonable steps to ensure that: (b) the design of its Core Systems facilitates technical interoperability with systems used by Unaffiliated Entities to access Covered Services, including through the adoption of relevant International Open Communication Procedures and Standards; and</p>	Release 1 of the CHES Project offers an interoperable and equivalent service to all AMOs (i.e. all AMOs are offered an equivalent service via the FIX gateway). It does not deliver interoperable clearing, settlement and sub-registers which will be delivered in Release 2.	N/A
5.0	<p>2.3.1 Non-discriminatory access: (2) A CS Service Provider must take reasonable steps to ensure that: (c) its Core Systems are designed and developed in a way that does not create or raise barriers to access by Unaffiliated Entities.</p>	ASX facilitates access to its clearing services through a transparent AMO accreditation process, which has not materially changed with the CHES Project, beyond alignment with the introduced FIX Standard.	15-16

03

Detailed Commentary



Detailed Commentary (1/2)

Scope Item	2.1.4 Core Systems: A CS Service Provider must take reasonable steps to ensure that: (a) each of its Core Systems meet the differing needs of Users; and
Commentary	ASX has established governance and ongoing communication with AMOs through the AMO Working Group and the Release 1 Build and Test Forum. These engagement processes have provided a mechanism for ASX to collect and consider feedback on requirements, and AMO input has been incorporated into the design of the TAS FIX Gateway and Clearing solution.
Commentary Detail	<p>The CHES Project conducted a series of stakeholder engagement working groups <Appendix 05>, including the AMO Working Group <REF A1.1>. This group comprises of representatives from all participating AMOs and met regularly throughout 2024 to contribute to the design of Release 1. Between February and November 2024, AMOs provided operational requirements and feedback through these sessions and broader consultations. These operational requirements aimed to refine FIX 5.0 SP2 messaging standard and improve clearing system resiliency. Further details on the adoption of FIX standard and its role in meeting the needs of users through International Open Communication Procedures and Standards is provided under Rule 2.1.4(c) (see page 13).</p> <p>Key AMO working group sessions include:</p> <ul style="list-style-type: none">• February 2024 AMO Working Group: Introduced the FIX Standard for Release 1 trade reporting, announced plans to share a baseline FIX Specification and a marked-up draft for industry feedback.• April 2024 AMO Working Group: Discussed the proposed replacement of CHES transaction IDs with Unique Trade Identifiers (UTI)s, FIX failover strategies, AE/AR schema refinements, and restrictions for Tag 939 status values.• May 2024 AMO Working Group: Focused on trade identifiers, TradeCaptureReport (AE) / TradeCaptureReportAck (AR) schema updates based on feedback, changes to allowable values for Parties, introduction of PartyRoleQualifier, and the proposed implementation of FIX ComplIDs.• July 2024 AMO Working Group: Covered TradeReportType allowable values and network design strategies for failover resiliency.• August 2024 AMO Working Group: Reviewed the alignment of condition codes across AMOs and explored network failover scenarios in detail.• September 2024 AMO Working Group: Revisited condition code discussions, introduced the SecurityDefinition (d) report for securities data, reviewed the PartyRoleQualifier field for AE messages, and finalised the FIX network failover architecture. <p>This input informed the development of the AMO User Technical Documentation <REF A1.0> which sets out the operational and technical requirements for AMO connectivity and message exchange, which is the primary technical reference for AMOs connecting to the TAS FIX Gateway for clearing solution, as well as the Trade Acceptance Service Legal Terms and Product Services Legal Terms which are the contractual terms that govern the use of the trade acceptance service. These Legal Terms were agreed between ASX Clear, ASX Settlement and each AMO. Several iterations of the technical specifications have been published to AMOs (currently Version 1.5), reflecting updates aligned with defect resolution and release milestones. These updates were informed through bilateral consultations and Implementation Working Group engagement, with releases published and communicated to participants and publicly. <REF A1.1></p> <p>Changes are incorporated into the Version 1.5 Technical Specifications <REF A1.0> following discussions with AMOs through the Release 1 Build and Test Forum <REF A1.6>. Where changes are more substantial or require formal governance, ASX follows an internal formal change request process. All such changes are documented, assessed, approved by the Change Control Board (CCB), and tracked through Jira tickets.</p>

Detailed Commentary (2/2)

Scope Item

2.1.4 Core Systems:
A CS Service Provider must take reasonable steps to ensure that:
(a) each of its Core Systems meet the differing needs of Users; and

Commentary

ASX has established governance and ongoing communication with AMOs through the AMO Working Group and the Release 1 Build and Test Forum. These engagement processes have provided a mechanism for ASX to collect and consider feedback on requirements, and AMO input has been incorporated into the design of the TAS FIX Gateway and Clearing solution.

Commentary Detail

The following are examples of change requests in response to AMO Feedback on the TAS FIX Gateway, aiming to enhance the reliability and resiliency of AMO connectivity. These include functionality changes when AMOs authenticate to the TAS FIX Gateway [REDACTED] and the introduction of additional technical redundancy for TAS FIX gateway [REDACTED]. This demonstrates that the FIX Gateway meets the differing needs of the AMOs by maintaining a more reliable and resilient connectivity. Examples of the technical change request details are provided below:

- [REDACTED]
- [REDACTED]

Depending on the materiality of the proposed change (e.g., its impact on cost or project timelines), significant scope changes may be escalated for governance. Such changes are first discussed at the Technical Committee. If appropriate, a recommendation for change is then presented to the Business Committee and for approval through ASX governance. At the time of this report, no change requests have required escalation to the Technical Committee.

Detailed Commentary

Scope Item

2.1.4 Core Systems:

A CS Service Provider must take reasonable steps to ensure that:

(b) none of its Core Systems create or raise barriers to access to its Covered Services; and

Commentary

ASX has implemented backward compatibility measures for Clearing Participants to minimise any technology change for them in the transitional period between the implementation of Release 1 and Release 2. These activities are intended to avoid creating new barriers to access for existing entities, supporting compliance with CS Services Rule 2.1.4(b).

Commentary Detail

The TAS FIX Gateway has historically supported access by multiple AMOs via the proprietary EIS. In Release 1, ASX is transitioning from EIS to the FIX 5.0 SP2 Standard, which reduces integration complexity and supports consistent communication across platforms, as it is a globally recognised, non-proprietary, open standard used in the financial industry globally to communicate trade information. Further detail on the adoption of FIX and its role in reducing access barriers is provided under Rule 2.1.4(c) (see page 13).

To maintain continuity of access to clearing services during the transitional period between the implementation of Release 1 and Release 2, ASX has implemented a backward compatibility interface for clearing messages to Clearing Participants. This approach minimises technology changes for Clearing Participants. Release 2 will move to an industry standard ISO 20022 messaging standard and fully interoperable model for CS Services, noting that the details of interoperability can not be finalised until a new entrant arrives.

System changes implemented to support continuity of access to settlement and sub-register service, and associated testing are captured and tracked

[REDACTED]

- [REDACTED]
- [REDACTED]

[REDACTED]

In addition, ASX is supporting industry clearing regression testing to validate that there is no downstream impact on industry participants. The regression testing scenarios (12 trade registration, 2 corporate actions, and 3 netting) were developed to cover all backward compatible message types that trigger specific CHES functionality, focusing on the most relevant and commonly utilised scenarios. This testing enables the participants to verify completeness and timeliness of messages, as trade capture messages via AMOs generate confirmations for Clearing Participants (e.g., EIS 164 is the CHES-side confirmation of trade capture), for accurate and timely exchange between BANCS and CHES.

Impacted parties were given the opportunity to provide feedback on the Clearing Regression testing phase through the Industry Working Group. Meetings in February, March, April, May, and June 2025 addressed different aspects of the regression testing, including the approach, message testing, co-existence testing, connectivity, and attestation criteria. These sessions provided updates and clarified testing activities for participants.

Detailed Commentary (1/2)

Scope Item

2.1.4 Core Systems:

A CS Service Provider must take reasonable steps to ensure that:

(c) any changes to its Core Systems accommodate relevant International Open Communication Procedures and Standards.

Commentary

ASX's implementation of FIX 5.0 SP2 in the TAS FIX Gateway aligns with CS Services Rule 2.1.4(c) with departures designed to support specific operational requirements of the Australian market and do not introduce barriers to access.

Commentary Detail

The legacy clearing solution for ASX's TAS Gateway uses the EIS proprietary interfaces for trade registration. This will move to the global standard FIX messaging protocol for trade registration. Settlement and sub-register messaging interfaces do not change until Release 2 when they will move to the industry standard ISO 20022. With Release 1 of the CHES Project, ASX will implement FIX 5.0 SP2, an International Open Communication Procedure and Standard for exchanging trade information for the TAS FIX Gateway. FIX 5.0 SP2 will be used by both ASX and AMOs to facilitate connectivity through the TAS FIX Gateway and the Alternate File Ingestion Interface (AFII) for the communication of trade information.

FIX 5.0 SP2 defines a common tag-value message structure, enabling consistent interpretation of messages across different systems and supporting transmission over industry adopted communication protocols, such as TCP/IP (communication protocols used to connect technology solutions through the internet networks), message queues (communication protocol to send asynchronous messages between technology solutions), or web services (standardised software components that enable technology solutions to communicate and exchange information over the internet). The FIX standard provides a standardised message dictionary, allowing AMOs to communicate with ASX using a consistent approach, regardless of their internal technology.

The shift from a proprietary to an open standard simplifies and reduces barriers to access for new and existing AMO participants, enabling broader access to ASX and aligning with international best practices. The adoption of FIX 5.0 SP2 standard is also consistent with broader industry practices in Australia. For example, NSX's FIX interface and ASIC's Australian Market Regulation Feed both use FIX 5.0 SP2 for transmitting trading data, facilitating integration and reducing complexity for participants operating across multiple platforms. The FIX 5.0 SP2 message schema and workflows include clearing and settlement related fields that can support representation of multiple clearing and settlement parties, enabling flexibility for diverse clearing arrangements if a new clearer or settlement facility proposes to offer services in Australia.

To meet the specific needs of the Australian market and AMO requirements, certain extensions from the FIX 5.0 SP2 specification have been necessary. These extensions are documented in the CHES Release 1 AMO User Technical Documentation (v1.5 at the time of this report) <REF A1.0 & A1.3> and have been accepted by participating AMOs. Acceptance of these extensions has been captured and communicated through:

- ASX AMO Industry Working Group (IWG) sessions (2024) <REF A1.1>
- Release 1 Build and Test Forum (2025 onwards) <REF A1.6>

Extensions to FIX 5.0 SP2 specifications are designed to support specific operational requirements for the Australian market and, therefore, do not introduce barriers to access. They are either necessary for local functionality or intended to improve system reliability and data integrity. Adjustments may include custom fields, valid values, or additional data validation rules to maintain data integrity and consistency.

Detailed Commentary (2/2)

Scope Item

2.1.4 Core Systems:

A CS Service Provider must take reasonable steps to ensure that:

(c) any changes to its Core Systems accommodate relevant International Open Communication Procedures and Standards.

Commentary

ASX's implementation of FIX 5.0 SP2 in the TAS FIX Gateway aligns with CS Services Rule 2.1.4(c) with departures designed to support specific operational requirements of the Australian market and do not introduce barriers to access.

Commentary Detail

Examples of extensions from the FIX 5.0 SP2 specification include:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

Alternate File Ingestion Interface (AFII)

In the event of a CHESSE incident where the ASX TAS FIX Gateway becomes unavailable due to unforeseen disruption in its connectivity with AMOs, ASX has a business continuity solution in place to route AMO trades via the Alternate File Ingestion Interface (AFII). AFII is designed to support business continuity processes for submitting trade and price transactions to the TAS FIX Gateway in the event of a technical outage. AFII allows participants to upload batch files in compressed ZIP format, providing an alternative to real-time FIX session-based connectivity.

Due to its design, AFII does not transmit messages through a standard FIX session. As a result, certain elements of the FIX 5.0 SP2 standard, such as MsgSeqNum (Tag 34) sequence number checks are bypassed. This deviation from the standard is fit for purpose, as AFII operates using a batch file system rather than individual message transmission. This approach demonstrates reliable CHESSE service continuity in business contingency scenarios, without introducing barriers to access.

Detailed Commentary (1/2)

Scope Item	<p>2.3.1 Non-discriminatory access: (2) A CS Service Provider must take reasonable steps to ensure that: (c) its Core Systems are designed and developed in a way that does not create or raise barriers to access by Unaffiliated Entities.</p>
Commentary	<p>ASX facilitates access to its clearing services through a transparent AMO accreditation process, which has not materially changed with the CHES Project, beyond alignment with the introduced FIX Standard.</p>
Commentary Detail	<p>ASX maintains a standardised and well-established process for AMO accreditation. While the introduction of the FIX standard for the TAS FIX Gateway replaces the legacy EIS format, the accreditation process itself remains largely unchanged. The shift to FIX standard is designed to lower barriers to access by moving away from proprietary message format and adopting a widely recognised industry standard. Importantly, AMO accreditation does not introduce new requirement complexity beyond what is necessary to support a common messaging standard.</p> <p>The existing process is transparently documented and published by ASX <REF A1.5>:</p> <ul style="list-style-type: none">• An AMO seeking access to ASX's TAS Gateway must submit a formal application and pay a non-refundable application fee.• The applicant must undergo operational, clearing, and product service assessments, including mandatory system testing before access is granted. <p>For Release 1, ASX is following a documented and transparent re-accreditation process to assess whether AMOs and AMO Software Providers are ready to operate with the new gateway. This process is outlined in the CHES Release 1 Industry Test Approach and supporting technical documentation <REF A1.0> and includes two core phases (relevant for this scope) AMO accreditation and AMO operational readiness.</p> <p>AMO Accreditation</p> <p>The CHES Release 1 AMO Accreditation Guide <REF A2.0> describes the objectives and criteria for accreditation, including prerequisites, required scenarios, and supplementary materials. The accreditation process focuses on key technical and business functionalities necessary for readiness. Mandatory scenarios are prioritised based on operational relevance and permitted FIX message types, with outcomes aligned with the FIX messaging specifications outlined in the AMO User Technical Documentation.</p> <p>The accreditation process validates AMO capabilities across a defined set of technical and operational scenarios:</p> <ol style="list-style-type: none">1. Session Management Scenarios: Addressing core functionalities such as FIX session establishment, Logon/Logout procedures, and handling of reconnections/disconnections.2. Business Messaging Scenarios: Covering critical use cases, including Trade Capture Reports (for submitting, amending, or cancelling trades) and Market Data Snapshots (for reporting security prices).3. Business Continuity Scenarios: Assessing the ability to process messages through backup interfaces, and, where required, perform failover to auxiliary endpoints.

Detailed Commentary (2/2)

Scope Item	2.3.1 Non-discriminatory access: (2) A CS Service Provider must take reasonable steps to ensure that: (c) its Core Systems are designed and developed in a way that does not create or raise barriers to access by Unaffiliated Entities.
Commentary	ASX facilitates access to its clearing services through a transparent AMO accreditation process, which has not materially changed with the CHES Project, beyond alignment with the introduced FIX Standard.
Commentary Detail	<p>Templates and pre-defined criteria for these scenarios are provided to AMOs for validation purposes, and testing is conducted within the Release 1 Industry Test Environment.</p> <p>Operational Readiness</p> <ul style="list-style-type: none">• The CHES Release 1 AMO Guide to Operational Readiness <REF A2.2>, focuses on end-to-end operational scenarios, including the generation, transmission, and receipt of FIX business application and session layer messages, as outlined in the FIX messaging specifications of the User Technical Documentation. The operational guide provides clear objectives, entry/exit criteria, and specific scenarios AMOs must undertake to demonstrate they are operationally ready to commence using their CHES Release 1 software.• Detailed readiness checklists and an Operational Readiness Application Form are provided to support assessment. <p>Consultation on rules and procedures</p> <p>Impacted stakeholders also contributed to changes in both procedures and contract terms including:</p> <ul style="list-style-type: none">• Rule & Procedure Amendments Consultation: On 3 March 2025, ASX consulted on proposed changes to its operating rules and procedures, including the removal of specific CHES functionality such as Clearing Participants' ability to request removal of transactions from novation or set-off. ASX published a response paper on 1 July 2025 with the feedback received and confirming the final changes.• AMO Contractual Terms Consultation: Also on 3 March 2025, ASX conducted a consultation on updates to AMO contractual terms, covering changes to Trade Acceptance Service Legal Terms, Product Services Legal Terms, and Operational & Technical Standards. Key updates included the introduction of the TAS FIX gateway, the extension of certain notice periods from 20 to 60 business days, and the requirement that ASX Clear and ASX Settlement provide the trade acceptance service subject to Service Levels, standards, prices or on any other basis no less favourable to the AMO than those applicable to any other AMO. ASX published a response paper on 1 October 2025 with the feedback received and confirming the final changes.

04 Appendices

Appendix 01

Detailed Scope



Detailed Scope

Scope

Evaluate the modular architecture and ability for TCS BaNCS MI to register trades, build positions and provide these to a separate system (i.e. CHES), and for CHES to receive novated positions from a separate system (i.e. BaNCS MI).

- Evaluate controls and reconciliation mechanisms described in the design for CHES Messenger for accuracy, completeness, and timeliness of trade/position data transfer between BaNCS and CHES.
- Assess whether ASX Clearing regression testing includes TCS BaNCS MI ability to register and accept trades and current CHES's ability to settle these trades.
- Validate the design for all Approved Market Operators (AMOs) access through the same standardised interface, in a non-proprietary format (using FIX messages) Confirm requirements and interface specifications define non-proprietary FIX messaging without restrictive extensions.
- Assess whether the message schema and workflows as designed support multi-Central Counterparties (CCP) connectivity and clearing selection.

Validate the process to consider & incorporate AMOs' requirements into the Clearing solution design.

- Review governance framework, working group minutes, or stakeholder consultation records to verify AMOs' input into design.
- Evaluate how AMO-provided requirements are captured, tracked, and incorporated into solution design artefacts.

Review CHES Project documentation / artefacts produced related to logical separation of the (Clearing) Solution, in compliance with the relevant CS Services Rule.

- Review solution requirements to confirm interoperability related obligations are explicitly captured (e.g. support for multiple AMOs, multi-CCP, standardised interfaces).
- Validate traceability of requirements through to design components to meet interoperability related obligations in scope for Release 1.
- Assess the plan for testing that will confirm the logical separation of the (Clearing) solution (test approach, conditions, responsibilities) is operating as expected.

Confirm the AMO accreditation process to connect and interact with the CHES Clearing solution aligns with new standard.

- Assess whether accreditation includes conformance testing, connectivity validation, and certification against FIX requirements.
- Confirm steps are documented, transparent, and consistently applied.
- Review supporting materials (checklists, test packs, accreditation criteria, communication protocols).

Out of Scope:

- The following scope is to be delivered in CHES Project Release 2 and is out-of-scope for this review:
 - Verify the solution by testing four specific scenarios that ensure the technology can support interoperability.
 - Validate all technical documentation and artefacts clearly delineate clearing, settlement and sub-register functionality.
 - Assess whether ISO20022 messages include the ability to specify the relevant clearing facility and/or settlement facility in the message (where applicable).
 - Evaluate the functional segregation of clearing and settlement participant and sponsoring participant roles and responsibilities.
- Review the current clearing and settlement rules to ensure they support the effective segregation of clearing functionality and settlement functionality.
- Operational Interoperability (the review will only assess how the CHES Project has facilitated interoperability with the new Clearing solution)
- CHES Project test execution will be out-of-scope of this review. The review will assess test planning and approach only (for Release 1 clearing regression testing and Release 1 AMO accreditation).

Appendix 02

Stakeholder Interviews

Stakeholder Register

As part of the field work for the report, the following stakeholder interviews were conducted:

Ref #	Role	Purpose / Agenda	Meeting Date
WS.1	Head of Technology Delivery SI Business Lead & Industry SME – CHES Project Senior Manager, Customer Readiness Delivery Manager Software Provider Stakeholder Engagement Manager Solution Architect Senior Program Manager - Assurance	Discuss how AMOs' interoperability requirements have been considered in Release 1 Clearing design and associated evidence to demonstrate this.	02/10/2025
WS.2	Test Director, CHES Test Manager SI Business Lead & Industry SME – CHES Project	Release 1 backwards compatibility functional test plan	20/10/2025

Appendix 03

Documentation

Documents / Artefacts Register

Ref #	Document / Artefact Name
A1.0	CHESS Release 1 Industry Test Approach V1.5
A1.1	AMO Working Group Presentation slides
A1.2	[REDACTED]
A1.3	[REDACTED]
A1.4	[REDACTED]
A1.5	Services for approved market operators
A1.6	R1 Build and Test Forum Presentation slides
A1.7	[REDACTED]
A1.8	[REDACTED]
A1.9	[REDACTED]
A2.0	CHESS Release 1 AMO Accreditation Guide V1.2
A2.1	[REDACTED]
A2.2	AMO CHESS Release 1 Guide to Operational Readiness v1.1
A2.3	[REDACTED]

Appendix 04

Glossary



Glossary

Term/Acronym	Definition
AE	TradeCaptureReport (AE): A FIX 5.0 SP2 Message which enables an Approved Market Operator to submit a trade that has been executed on their trading venue or cancel a trade so that the trade (or trade cancellation) can be validated for acceptance into the TAS FIX Gateway.
ASIC	Australian Securities and Investment Commission
ASX	Australian Securities Exchange
AR	TradeCaptureReportAck (AR): A FIX 5.0 SP2 Message that provides an Approved Market Operator with a success or failure or pending response to the TradeCaptureReport (AE) received for either reporting a new trade or cancelling an existing trade.
CBOE	Chicago Board Options Exchange
CHES	Clearing House Electronic Subregister System
Core Systems	The system which provides clearing, settlement and sub-register services/functions i.e. CHES
CS	Clearing and Settlement
EIS	Electronic Interface Specification: The protocol used to communicate with the current CHES system
FIX 5.0 SP2	FIX: Financial Information eXchange protocol, a standard for electronic communication of trade-related messages. 5.0: The version of the FIX Standard. SP2 (Service Pack 2): An update to FIX 5.0 that includes enhancements and corrections beyond what was provided in SP1 (Service Pack 1).
IWG	Industry Working Group
JIRA	ASX enterprise project management tool
SSX	Sydney Stock Exchange
TAS Gateway	Trade Acceptance Service Gateway, provides connectivity between Approved Market Operators (AMOs) and existing CHES for clearing services. This refers to the existing CHES Gateway which uses the EIS protocol.
TAS FIX Gateway	Trade Acceptance Service FIX Gateway, provides connectivity between Approved Market Operators (AMOs) and CHES Project clearing services. This refers to the adoption of the new international communication standards and protocol for FIX 5.0 SP2.
TCP/IP	Transmission Control Protocol / Internet Protocol: The fundamental set of communication protocols used for the internet and similar networks, enabling devices to exchange data
Unaffiliated Entities	Other companies/platforms which provide clearing, settlement, and sub-register services
UTI	Unique Trade Identifier

Appendix 05

CHESS Governance

CHES Project governance structure

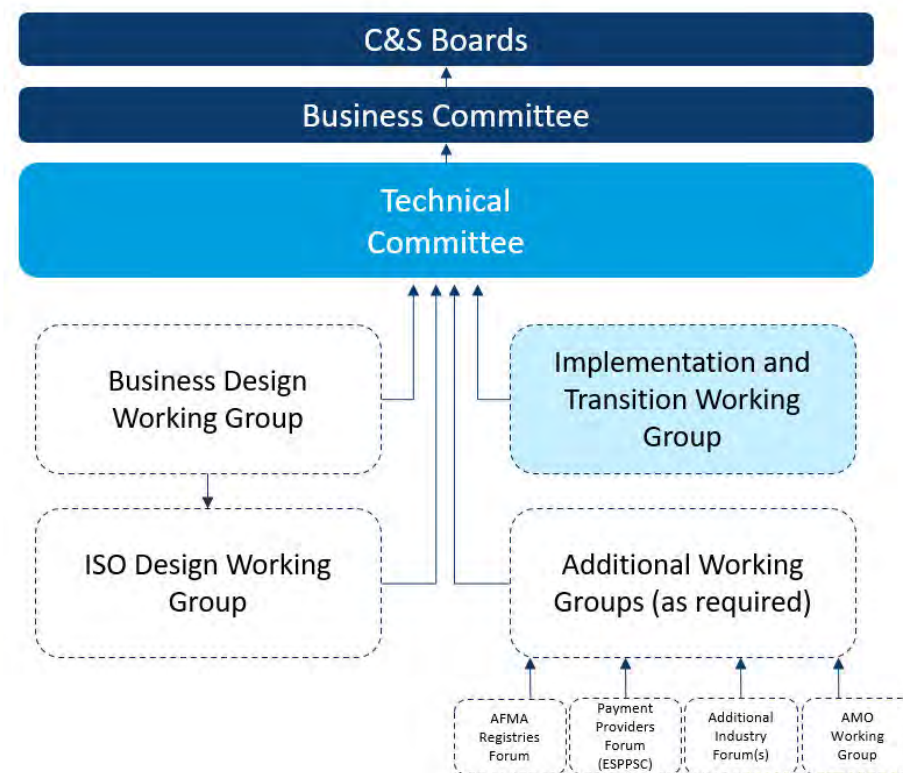
01 – Stakeholder engagement working groups

Moving forward

In the 24 November Committee, ASX introduced the Implementation and Transition Working Group (ITWG).

- › Implementation and Transition Working Group (ITWG)
 - Responsible for implementation planning
 - Will be consulted on plan, cutover, migration and testing
- › Business Design Working Group (BDWG)
 - Responsible for the functional design of any new/changing scope
 - Includes Business and Operational SMEs from relevant organisations
- › ISO Design Working Group (IDWG)
 - Responsible for the ISO20022 message designs and flows
 - Will be consulted on all messages
 - Includes Technical SMEs from relevant organisations
- › Additional Working Groups
 - Members and responsibilities as required

7 | Implementation and Transition Working Group 12 December 2023





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