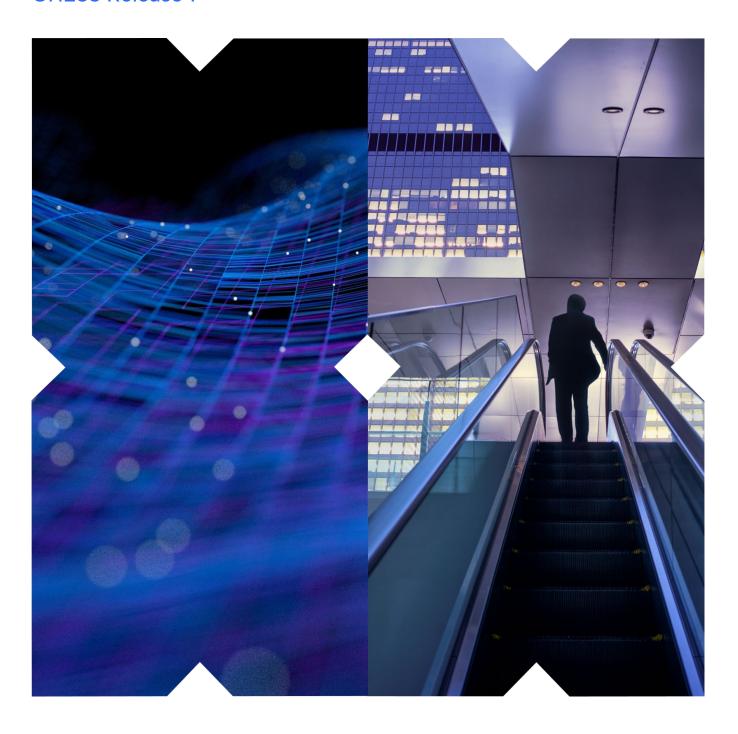


Frequently Asked Questions

CHESS Release 1





Contents

1.	Implementation Dress Rehearsals and AMO Parallel Test FAQs			
1.1.	AMO participation in the Parallel Test phase			
1.2.	Clearing Participants and the Parallel Test phase			
2.	Clearing Regression FAQs			
2.1.	Testing			
	2.1.1. Tooling	11		
2.2.	Messages			
	2.2.1. Trades	12		
	2.2.2. Corporate Actions	13		
2.3.	CP Trade File Upload Tool			
2.4.	AMO customer test environments			
2.5.	Clearing Regression Attestation			
3.	AMO Accreditation FAQs	16		
4.	AMO Operational Readiness FAQs			
5.	AMO Readiness FAQs			
5.1.	Security Definition (d) Message			
5.2.	Auxiliary FIX Endpoint	20		
5.3.	Message Volumes			
5.4.	Assisted Testing Activities			
5.5.	Known Issues			
5.6.	Alternate File Ingestion Interface (AFII)			
6.	ITE Open FAOs			



Version History

Updates and revisions are documented below:

Version	Date	Comments / Change Log
1.0	February 2025	FAQs for ITE Open release
2.0	June 2025	Added FAQs for AMO Readiness release
3.0	September 2025	Added FAQs for Accreditation and Operational Readiness
4.0	October 2025	Added FAQs for Clearing Regression
5.0	November 2025	Added FAQs for Implementation Dress Rehearsals and AMO Parallel Testing



Implementation Dress Rehearsals and AMO Parallel Test FAQs

For more information about Implementation Dress Rehearsals and the AMO Parallel Test phase, please refer to the CHESS Release 1 AMO Parallel Test Release Notes.

What is the purpose of performing Implementation Dress Rehearsals?

The purpose of each Implementation Dress Rehearsal (IDR) event is to ensure, through realistic rehearsals, that full migration, cutover, verification and rollback can be carried out safely within a go-live weekend.

The objectives for Implementation Dress Rehearsals are to allow ASX and all AMOs to:

- prove, test and refine the cutover approach
- · confirm the sequence of activities are correct
- allow for adjustments to be made to the runsheet, as necessary, to ensure all activities can be completed within the actual migration window
- test the communication channels with the ASX Master Control Centre (MCC)
- test the governance process
- test cutover incident management procedures.

What is the purpose of the Parallel Test phase?

The purpose of the CHESS Release 1 Parallel Test phase is risk mitigation ahead of go-live where production trade registration and pricing feeds are mirrored into both current CHESS and the CHESS R1 To-Be-Production environment. The goal is to validate accuracy and consistency under production-like conditions.

What are the timings/dates for critical events in the Implementation Dress Rehearsals and Parallel Test phase?

There are two planned AMO Parallel Testing cycles running for two weeks each, following successful Implementation Dress Rehearsals. Refer to the CHESS Release 1 IDR1 Runbook for more information about the IDRs.

The first planned IDR is scheduled for Saturday 15 November 2025. The first AMO Parallel Test cycle will run from Monday 17 – Friday 28 November 2025. After these two weeks, the CHESS R1 To-Be Production environment will be reset.

The second planned IDR is scheduled for Saturday 7 February 2026. The second AMO Parallel Test cycle will run from Monday 9 – Friday 20 February 2026. After these two weeks, the CHESS RI To-Be Production environment will be reset in preparation for transitioning to the Production Environment at Release 1 go-live.

During the Parallel Test cycles, reconciliation reports are generated daily and transmitted the next business day to AMOs and CPs who have requested access.



1.1. AMO participation in the Parallel Test phase

What are AMOs expected to do during the Parallel Test phase?

During the Parallel Test phase, AMOs will be required to duplicate their trade registration and pricing messages, as currently sent to CHESS production, to the CHESS R1 To-Be-Production environment in FIX 5.0 format. The comparison reports from these AMO parallel tests will then be securely shared for verification and validation with AMOs. AMOs can use these reports to identify issues with their Release 1 software and make the necessary changes to achieve outcomes that reconcile.

AMOs are expected to be connected to the CHESS R1 To-Be-Production environment from 24 October 2025, in preparation for the first Implementation Dress Rehearsal which is planned to occur Saturday 15 November 2025. AMOs are requested to submit their To-Be-Production connectivity application forms by 31 October 2025 to achieve these timelines. Application forms are available in the CHESS Release 1 Connectivity Guide (v1.2) along with information about network configuration, certificate management, FIX Gateway access and environment-specific parameters.

How do AMOs access the Parallel Test AMO reconciliation reports?

An SFTP solution will be used to facilitate the secure and efficient distribution of each AMOs reconciliation reports. This approach provides confidentiality and traceability, allowing AMOs to independently access reports and verify results, with files remaining available for access and download for up to 30 days.

Reconciliation reports will be shared with AMOs on the next business day via dedicated SFTP folders.

Each AMO will be automatically provisioned with access to a unique folder and provided with the relevant details prior to the commencement of the AMO Parallel Test phase.

For more information about the SFTP folders, refer to the CHESS Release 1 AMO Parallel Test Guide.

What data will be provided in the Parallel Test AMO reconciliation reports?

Trades registered in the CHESS production database will be reported on for comparison to trades registered in the R1 To-Be-Production environment database, identifying if outcomes are the same or if there are differences.

The reconciliation process will generate two types of reports on a daily basis:

- Summary report aggregated counts of records on CHESS Production and CHESS R1 Clearing Service in the To-Be-Production environment
- Detailed line-level reports unmatched reports and mismatch reports. These reports include rowby-row comparison results for each Trade Registration outcome/message type.

What could cause a reconciliation break in the AMO reconciliation reports and what should an AMO do if a reconciliation break is identified?

The same information not being sent over the two channels, or not being sent over the two channels in exactly the same order, could cause a reconciliation break which would be identified in the AMO reconciliation reports. For example, if a trade was reported to current CHESS but was either not reported or not accepted by the R1 Clearing Service, this would appear as a reconciliation break. Similarly, if a trade was reported to current CHESS with condition codes in a certain order but was sent to the R1 Clearing Service with the same condition codes in a different order, this would also be identified as a reconciliation break.

ASX will review reconciliation breaks if they arise and will discuss the required resolution and approach with impacted AMOs.



How will an AMO be informed if additional Dress Rehearsals or Parallel Test cycles are required?

Additional IDRs or additional cycles or extension to the planned duration for the AMO Parallel Test phase will be agreed through engagement with the AMOs and confirmed through the Technical Committee.

What is required of an AMO by the completion of the Parallel Test phase?

An AMO Readiness Attestation Form confirming an AMO's readiness for go-live is required by the completion of the Parallel Test phase.

The Parallel Test phase exit criteria specify that AMOs are satisfied that key outcomes have been met, including:

- successful reconciliation of Trade Registration messages
- successful processing of trade and price messages by their software at production volumes
- providing attestation confirming readiness for go-live.

When is the AMO's AMO Readiness Attestation Form required to be provided by?

The AMO Readiness Attestation Form is required to be provided by February 2026, with key readiness metric dates included in the CHESS Release I AMO Parallel Test Release Notes.

The AMO Readiness Attestation Form will be added to the <u>Release 1 hub</u> in early 2026. AMOs will be informed of its creation and access location when published.

1.2. Clearing Participants and the Parallel Test phase

Are Clearing Participants (CPs) required to participate in the Parallel Test phase?

No, it is not mandatory for CPs to participate in the Parallel Test phase. CPs can opt in to receive the CP reconciliation reports. Due to the large amount of data generated and transmitted in CSV files for the relevant clearing messages contained within EIS Message files, they will only be enabled for CPs who have opted into the AMO Parallel Test phase. This optional engagement allows CPs to gain visibility into the operational behaviour of the CHESS R1 To-Be-Production environment without imposing mandatory testing requirements.

CPs who elect to receive EIS comparison reports will be able to review the comparison of EIS messages generated for their organisation between current CHESS and the R1 Clearing Service using production trades sent by AMOs during Parallel Testing cycles.

If a CP wants to participate in the Parallel Test phase, what are they required to do?

To request EIS comparison files and the required SFTP access in preparation for the first Parallel Test cycle (planned to commence on 17 November 2025), CPs have been requested to submit their **Clearing Participant Parallel Test Report Request Form** by Friday 24 October 2025. Once enabled, files from any following parallel test cycle will automatically be generated for the CP and placed in their SFTP report folders.

While 24 October 2025 was the cutoff date to request to self-nominate and receive CP reconciliation reports during the Parallel Testing phase, CPs can still nominate to opt in but they will not receive back dated reports (only data from the date when their SFTP folders and report enablement are set up). Instructions for CPs to opt in are found in the Sharing reconciliation reports with Clearing Participants section in the CHESS Release 1 AMO Parallel Test Guide.

Clearing Participants must establish SFTP connectivity to the CHESS R1 Clearing Service in the To-Be-Production (Production) environment, which will be enabled as part of ASX processing of the CP's Clearing Participant Parallel Test Report Request Form (refer to the Appendix in the CHESS Release 1 AMO Parallel Test Guide). Detailed information for Clearing Participants to connect to ASX SFTP services is available in the CHESS Release 1 Clearing Regression Guide.



When their SFTP account is created in the Production environment, CPs will be provided with their SFTP account name.

How do CPs access the Parallel Test CPs reconciliation reports?

An SFTP solution allows CPs to independently access reports and verify results with files remaining available for access and download for up to 30 days.

CP reconciliation reports will be shared with CPs on the next business day via dedicated SFTP folders. Each CP will be provisioned with access to a unique folder.

What data will be provided in the Parallel Test CP reconciliation reports?

The CP reconciliation reports focus on comparing following trade related outcomes at different stages from CHESS production and CHESS R1 To-Be-Production environment (CHESS R1 Clearing Service):

- EIS Messages
 - Trades Registered (EIS 164 and EIS 116 messages)
 - Other Backwards compatible EIS Messages (EIS 124, EIS 128, EIS 134, EIS 138, and EIS 542 messages)
- Settlement Obligations a count of settlement obligations and the aggregate settlement value will be compared and reported on.

The reconciliation process will generate two types of reports:

- Summary report aggregated counts of records on CHESS Production and CHESS RI To-Be-Production environment with a breakdown of matched, unmatched and mismatched records.
- Detailed line-level reports unmatched reports, mismatch reports and a report of all transactions (raw data extracts) include row-by-row comparison results for each outcome/message type, available in CSV format.

The raw data extract files available for opt in CPs have a classification in the filename which represents the relevant environment the data in the report has been sourced from, i.e. chessasis (CHESS As Is, the current CHESS environment), and chesstobe (CHESS To-Be, the R1 Clearing Service environment).

What could cause a reconciliation break in the CP reconciliation reports and what should a CP do if a reconciliation break is identified?

The same trade report information not being sent over the two channels by AMOs could cause a reconciliation break in the CP reconciliation reports.

ASX will review reconciliation breaks if they arise and will discuss the required resolution and approach with impacted AMOs and inform impacted CPs of the outcomes.

What is required of a CP by the completion of the Parallel Test phase?

By the completion of the Parallel Test phase, which aligns with the end of the Clearing Regression phase, CPs are required to have completed their readiness attestation. CPs are expected to submit their readiness attestations once they have completed their Clearing Regression testing.

There is no requirement for CPs to participate in the AMO Parallel Test phase or wait until AMOs have completed their AMO Parallel Test activities before submitting their readiness attestation.

What are the key items AMOs and CPs should be aware of when interpreting the AMO Parallel Test Reconciliation reports?

1. Ordering of Condition Codes & BOQ – AMOs must replicate the same ordering for both current (AS IS: *EIS161, A22*) and future (TO BE: *FIX*) trades.



- 2. Settlement Obligation Segregation Previous report samples showed segregation across three categories:
 - Netted novated trades
 - Gross novated trades
 - Gross non-novated trades.

Parallel Test reports will only segregate trades with obligations, which are:

- Netted novated trades
- · Gross novated trades.
- 3. EIS Message Header the protocol function code in the original message sent to the counterparty appears as "09", while raw EIS message files display this column as "DATA". Both values represent the same meaning.

4. Deferred Settlements

- CHESS PROD includes all trades, including deferred trades.
- BaNCS TO BE reports only T+2 trades as settlement obligations.
- Deferred trades appear as unmatched in reconciliation due to differences in settlement obligation reporting between CHESS PROD and BaNCS TO BE.

5. UIC Formatting Issue

- Raw data will show participant identifiers with a leading 0, for example 01234, which aligns with the actual message.
- Mismatch and unmatched reports remove the leading zero, displaying a four-digit identifier, for example 1234.

6. Mismatch Indicator

The asterisk ("*") denoting mismatches applies only to the TO BE side in the mismatch.



2. Clearing Regression FAQs

For more information about Clearing Regression, please refer to the <u>CHESS Release 1 Clearing Regression Test Guide</u> and <u>Clearing Regression Release Notes</u>.

2.1. Testing

What is the purpose of Clearing Regression testing?

The purpose of the Clearing Regression phase is to provide Clearing Participants with the time and tooling needed to test a sufficient volume of backwards compatible messages generated from the CHESS Release 1 Clearing Service to provide confidence that their systems can consume and process the backwards compatible EIS messages and they can therefore proceed with the CHESS Release 1 cutover without disruption.

Can software vendors complete Clearing Regression on behalf of Clearing Participants?

Yes, Clearing Participants can rely on their Software Provider to support them by completing the required Clearing Regression testing. However, accountability for verifying and confirming that their systems will continue to receive and process the backwards compatible EIS messages remains with the Clearing Participant and cannot be outsourced. Clearing Participants will need to attest that their Software Provider has completed the Clearing Regression testing on their behalf and that they are satisfied with the results.

When should a Participant start their Clearing Regression testing?

Once the Clearing Regression release is available in the Industry Test Environment, Clearing Participants can commence their testing. All Clearing Participants are expected to commence their Clearing Regression testing by no later than 16 November 2025. Mandatory testing should be started as early as possible within the Clearing Regression phase to allow sufficient time to identify and address any issues, and complete any retesting activities required.

What are the risks of a Clearing Participant not commencing their Clearing Regression testing early in the Clearing Regression Test phase?

A delay in the start of testing beyond 16 November 2025 risks a Clearing Participant having insufficient time to address any issues found, complete testing and meet the milestones required to achieve the planned Release 1 go-live schedule.

Refer to the <u>Clearing Regression Release Notes</u> for Clearing Participant readiness milestone dates.

What EIS messages are required to be tested during the Clearing Regression phase?

Seven backwards compatible messages form the mandatory scope of Clearing Regression testing:

- EIS 164-03 (Notified Broker Broker Trade)
- EIS 116-01 (Cancelled Settlement Instruction
- EIS 124-01 (Rescheduled Settlement Instruction)
- EIS 128-02 (Adjusted Settlement Instruction)
- EIS 138-01 (Netted Broker Broker Trade)
- EIS 134-01 (Scheduled Net Broker Obligation)
- EIS 542-01 (CHESS Event Notification)

Refer to the <u>CHESS Release 1 Clearing Regression Test Guide</u> for further details and mandatory testing scenarios.



Can Participants test other workflows and resulting EIS messages during the Clearing Regression phase?

Yes, testing can be performed for unchanged message workflows if desired although it is not required as part of the Clearing Regression phase.

What volume of backwards compatible messages are expected to be tested by a Clearing Participant before they determine they have successfully completed testing?

Participants must successfully complete all mandatory scenarios as defined in the <u>CHESS Release 1</u> <u>Clearing Regression Test Guide</u>. Participants are not required to perform non-functional/high volume testing during the Clearing Regression phase and are only required to perform testing on the seven backwards compatible messages.

ASX does not prescribe a minimum level of testing for Participants as each Participant should test a sufficient volume of backwards compatible messages to provide comfort that they can confidently proceed with the CHESS Release 1 cutover without disruption.

ASX recommends that participants trigger and consume a minimum of 100 of each backwards compatible message before providing their attestation.

What should a Clearing Participant do if they identify a backwards compatible message that cannot be consumed by their software?

To successfully complete testing, Clearing Participant software must be able to consume all backwards compatible messages. If a message cannot be consumed by their software, the cause must be identified and remediated, and testing rerun.

What should a Clearing Participant do if they do not receive an EIS message they were expecting?

Clearing Participants using the CP Trade File Upload Tool should receive an acknowledgement file outlining the status of each trade it requested be created. Any trade rejections identified in the acknowledgement file will not generate expected EIS messages.

Trade rejections should not occur if Participants are using the specified securities listed in the <u>Clearing Regression Release Notes</u> recommended for Clearing Regression testing and are following the instructions contained in the CP Trade File Upload Template.

Accepted trades, and accepted trades for backwards compatible Corporate Action events on the day/period specified in the <u>Clearing Regression Release Notes</u> are expected to generate Backwards Compatible EIS messages.

If for any reason a Backwards Compatible EIS message for an accepted trade isn't received by a Clearing Participant, they should contact CHESS <u>Customer Technical Support</u> or email <u>CHESSreplacement@asx.com.au</u>.

What should a Clearing Participant do once they are satisfied they have successfully completed testing?

When satisfied that their testing is complete the Clearing Participant should complete the *Clearing Regression Phase Attestation* and return it to CHESSreplacement@asx.com.au.

Refer to the <u>CHESS Release 1 Clearing Regression Test Guide</u> to obtain the *Clearing Regression Phase Attestation*.



Can Clearing Participants complete Clearing Regression testing over the Christmas / New Year period?

The test environment is available every business day across the Christmas and New Year period, excluding weekends and public holidays as is standard. Each Clearing Participants should manage their testing schedule as best suits their organisation.

What are the CHESS Project Customer Technical Support hours over the Christmas and new year periods?

Standard support hours between 9am and 5pm AET apply for business days across the Christmas and New Year period. Support is unavailable on weekends and Public holidays.

2.1.1. Tooling

What methods are available for transmitting test trades?

The primary method for Clearing Regression testing is the Trade File Upload tool, which enables Participants to independently initiate and inject trade capture and cancellation messages into the FIX channel for processing by the CHESS Release 1 Clearing Service.

Optionally, AMO test environments from Cboe Australia and ASX Trade have been made available for Clearing Participants that have requested the ability to perform end-to-end testing in the Clearing Regression environment. Refer to the <u>Clearing Regression Release Notes</u> for further information.

What test tooling exists in the test environment supporting Clearing Regression Testing?

The XPI test environment provides the same tools, such as injectors and auto responders, as the standard ASX External User Testing Environments to as closely replicate production as possible and enable single-sided testing where necessary. For details, refer to the CHESS External User Testing Guidelines.

2.2. Messages

What are the differences in backwards compatible messages for CHESS Release 1?

For details relating to backwards compatible message variances please refer to section 5.2 Backwards Compatible EIS Message Variances in the <u>CHESS Release 1 Clearing Regression Test Guide</u>.

Variances are summarised as:

• Field level input data variances - Transaction IDs

CHESS utilises several different Transaction IDs in various EIS messages. Whilst their format aligns to the EIS specifications (i.e. 16 characters), some minor variances to the IDs have been necessary to operate the CHESS Release 1 Clearing Service

Message Sequence for EIS 124 and EIS 128

When there are Corporate Action events resulting in the settlement date and security code being updated across applicable settlement instructions on the same day, there will be a difference in scheduling when blocks of related EIS messages are transmitted to Clearing Participants. Instead of all messages being generated and transmitted in one block (i.e. EIS 124 first, then EIS 128), they are now split into two blocks, one for each system generating the message



As Net Broker Obligations (NBOs) are held in CHESS, but market trades are in CHESS Release 1
Clearing Service, a block of rescheduled settlement instruction (EIS 124) and adjusted settlement
instructions (EIS 128) will be transmitted first from CHESS to reflect the changes to netted trades,
followed by a subsequent block of rescheduled settlement instruction (EIS 124) and adjusted
settlement instructions (EIS 128) for all not-yet-netted market trades in the CHESS Release 1
Clearing Service

In addition, Clearing Participants should be aware that the processing of EIS messages by the Release 1 Clearing Service may occur at slightly different times when compared to current CHESS and the message timestamps will reflect the processing time by the Release 1 Clearing service. There are no structural changes to the timestamp field or the data contained within.

What time zone does CHESS operate in?

All date and time stamps received from CHESS are in AET/Sydney time.

2.2.1. Trades

Is the Clearing Regression test environment able to support high-volume testing?

The Clearing Regression test environment is not designed to perform high-volume testing.

What is the maximum number of trades that can be transmitted to CHESS Release 1 Clearing Service daily?

A maximum of 5000 trades can be sent by each participant in one day. This includes trades submitted through both the Trade File Upload tool and an AMO Customer Test Environment.

What volume/performance testing has the ASX CHESS Project done in preparation for the Clearing Regression release?

ASX has performed volume testing of the Clearing Regression solution in excess of production volumes in its internal test environments.

In addition, AMOs will be submitting production message volumes to the Release 1 Clearing Service in the To-Be Production environment as part of the Parallel Test phase.

Are there ways Clearing Participants can get visibility of higher trade volumes and EIS volumes as part of another test phase?

Clearing Participants can opt to participate in the AMO Parallel Test phase during which they will have the opportunity to gain visibility into the operational behaviour of the Release 1 To-Be Production environment. For more information, please refer to the <u>CHESS Release 1 AMO Parallel Test Guide</u>.

How often are failed trades purged from the test environment?

To minimise the number of failed and rescheduled trade messages received by Clearing Participants as a result of test trades they initiate which are not settled, ASX will be purging failed trades from the Clearing Regression Test environment.

To enable Clearing Participants to test the optional settlement workflows associated with failed and rescheduled trades (if they wish), ASX plans to purge failed trades from the Clearing Regression test environment on a weekly basis if the count of settlement fails is greater than or equal to 5.



2.2.2. Corporate Actions

Can Clearing Participants request additional non-production Corporate Actions?

If additional non-production securities are needed for testing optional corporate action scenarios, please email CHESSreplacement@asx.com.au with key dates and corporate action details, such as event type, to enable ASX to review and action the request.

2.3. CP Trade File Upload Tool

What is the CP Trade File Upload Tool?

The CP Trade File Upload Tool is the primary channel for Clearing Regression testing and enables Clearing Participants to independently test the required message workflows. It will accept trade records on all security codes enabled in the test environment.

How do Clearing Participants use the CP Trade File Upload Tool?

Clearing Participants need to enable SFTP connectivity with the specified folder structure.

Files containing one or more test trade records are created in the required format using the Test Trade File Template, and uploaded to the tool's CP_Upload folder for processing.

Acknowledgement files are returned to the tool's CP_Download folder for retrieval by the Clearing Participant.

For more information, please refer to the <u>Clearing Regression Release Notes</u> and <u>CHESS Release 1</u> Clearing Regression Test Guide.

Is the CP Trade Upload Tool designed to cater for non-functional and negative scenario testing?

The Clearing Regression test environment is not designed to perform non-functional or negative scenario testing.

Can a trade cancellation be sent in the same file as the trade it is cancelling?

No. To process a trade cancellation request the trade must already be registered in the clearing service. This means the cancellation request must be sent on the same day but in a separate file at least 10 minutes after the trade request.

Can the data in the output file created from the Test Trade File Template be altered before upload?

The data automatically populated on the Test Trade_Output tab of the Test Trade File Template should not be changed before or after it is saved as a .csv file to be uploaded. Any alterations may result in non-standard outcomes including a potential failure to process the file (in part or in full).

How often are uploaded files processed?

CP_Upload folders will be polled every 5 minutes, between 07:10 to 17:00 (AET/Sydney Time). New files are transmitted to the FIX channel for processing by the CHESS Release 1 Clearing Service, and then removed to the Processed folder under the CP_Upload folder.

Files are processed in the order they are uploaded.

What are the supported hours for file uploads?

File uploading is supported between 07:10 to 17:00 AET.



What time zones should be referenced when naming the test trade upload file?

The yyyymmdd portion of the file name is the date in Sydney time on which the file is uploaded.

The hhmm portion of the file name is the local time of when the file was created, and is used to ensure the file name is unique.

Please refer to the CHESS Release 1 Clearing Regression Test Guide for file naming conventions.

How should a Clearing Participant interpret a trade file upload acknowledgement file?

An acknowledgement file will be generated for each test trade file processed by the clearing service. A test trade file can be matched to its acknowledgement file using the file names, of which the date and time portions will be the same. For example, if the test trade file is named 0123_trade_20250522_1730.csv the corresponding Acknowledgment file would be named 0123_ack_20250522_1730.csv.

The acknowledgement file will contain a response for each trade record in the processed file. Responses are identified by the Trade ID and can be used to determine the status of the trade record. If a trade record is rejected, the error message can highlight the cause.

What should a Clearing Participant do if they do not receive a trade file upload acknowledgement File?

An acknowledgement file may not be received if the uploaded test trade file was not processed. Generally, uploaded test trade files will be processed unless the data contained within has been altered or does not conform to the instructions provided within the Test Trade File Template.

For further queries, Clearing Participants should contact <u>Customer Technical Support</u> or CHESSreplacement@asx.com.au.

How long are files retained?

Trade upload and acknowledgement files are retained for 30 days before being archived.

2.4. AMO customer test environments

Are Clearing Participants expected to initiate trades through an AMO's Customer Test Environment as part of their backwards compatible message testing?

Clearing Participants are not required to use an AMO's Customer Test Environment to perform their testing. All testing activities can be completed using the CP Trade File Upload Tool.

AMO customer test environments have been made available to support the small number of Participants wanting to perform end-to-end testing in the Clearing Regression environment.

What are the Customer Support contact details for the AMOs supporting Clearing Regression trade initiation?

Please refer the <u>Clearing Regression Release Notes</u> for AMO support details.

2.5. Clearing Regression Attestation

What is the purpose of the Clearing Regression Attestation?

The purpose of the Clearing Regression Attestation is for Clearing Participants to confirm they can continue to complete their business-as-usual processes after receiving and processing backwards compatible EIS messages and are ready to proceed with Release I go-live.



Why do participants need to attest to downstream systems in point 3 of the Attestation form?

As the purpose of the Clearing Regression phase is to validate that Clearing Participants can continue to complete their business-as-usual processes after receiving and processing Backwards Compatible EIS messages, participants are required to perform testing in their upstream and downstream systems where those systems rely on a backwards compatible message, or specific data contained within the backwards compatible message.

Where participants identify that their upstream and downstream systems do not rely on a backwards compatible message, or specific data contained within the backwards compatible message, testing of upstream and downstream systems is considered not applicable.

ASX notes that it has no visibility of Clearing Participant upstream and downstream systems used in Clearing Participant business-as-usual processes and therefore is reliant on Clearing Participants to confirm their upstream and downstream system testing has been performed where applicable and that Clearing Participants are satisfied with their test results. This confirmation is captured through the Clearing Regression Attestation.



3. AMO Accreditation FAQs

For more information about AMO Accreditation, please refer to the <u>CHESS Release 1 AMO Accreditation</u> Guide.

What is the purpose of AMO Accreditation?

The purpose of Accreditation is to validate that software developed by AMOs or their Software Providers can correctly and safely connect to and operate with CHESS Release 1.

This validation confirms that the AMO software can send and receive specific session level and application FIX messages that conform to the specifications, demonstrating that the AMO will be able to submit trades and prices effectively when the new system goes live.

What are the prerequisites for AMO Accreditation?

Before completing their AMO Accreditation assessment, AMOs or their Software Providers must complete their software build and testing, including non-functional testing where applicable, and verify their software's conformance to specifications for each relevant accreditation scenario.

How is an Accreditation assessment scheduled?

Complete the <u>AMO Accreditation Application Form</u> and submit to <u>CHESSreplacement@asx.com.au</u>. A member of the CHESS Project Customer Technical Support team will be in contact to discuss and confirm the assessment time.

What are the key Accreditation scenarios?

Scenarios include:

- 1. FIX session management: logon, logout, heartbeat transmission, password reset, message sequencing, multiple Comp IDs, and forced disconnections/recovery to primary or auxiliary (if enabled).
- 2. Application messaging: new trades, trade cancellations, pending trades, As-At trades, trades with BOQ/Condition Codes, and prices.
- 3. Software resiliency: Alternate File Ingestion Interface and Auxiliary Endpoint.

How long will it take to complete the Accreditation scenarios?

Completing the Accreditation scenarios should take no more than a day and must be completed within three days of the scheduled assessment start date.

What is the role of ASX during Accreditation?

ASX will schedule the window during which AMOs can perform accreditation and will facilitate the activities required where ASX assistance is needed (e.g. forced disconnection events and enabling the scenarios for a trade to trigger a pending condition). ASX will also provide technical support if needed.

What happens if an Accreditation assessment is not passed?

AMOs or their Software Providers who fail the Accreditation assessment are required to fix the cause of their software's assessment failure and will need to repeat the Accreditation assessment.

It is important to ensure assessments are scheduled early in the assessment window to provide enough time to rectify any issues and repeat the assessment if necessary.



When can a conditional AMO Accreditation scenario not be completed, and what is the impact?

Conditional accreditation scenarios do not need to be completed if they relate to functionality not supported by the AMO's production software.

- Conditional scenarios intended to be supported by production software are nominated on the Accreditation application form, and will be confirmed during processing of the application form.
- All nominated conditional scenarios must be passed to achieve accreditation.
- By completing the Accreditation application form, the AMO or Software Provider confirm that the
 accredited software will not support any functions beyond those nominated and passed in the
 Accreditation assessment.

Does AMO Accreditation need to be completed before an AMO Operational Readiness assessment can be scheduled?

Yes, AMO Accreditation is a prerequisite to scheduling and performing AMO Operational Readiness.

AMO Operational Readiness must be performed on accredited software installed in the AMO's own test environment.

When is an AMO's Software Provider permitted to complete AMO Accreditation on an AMO's behalf?

A Software Provider can complete Accreditation on behalf of an AMO, when the Software Provider has been engaged by the AMO to build the software that is to be accredited.

Similar assessment is performed directly by the AMO as part of Operational Readiness to confirm that the accredited software operates correctly in the AMO's own environment.



4. AMO Operational Readiness FAQs

For more information about AMO Operational Readiness, please refer to the <u>CHESS Release 1 AMO</u> Operational Readiness Guide.

What is the purpose of AMO Operational Readiness?

The objective of the AMO Operational Readiness phase is to confirm that each AMO is prepared for the transition to CHESS Release 1 and that they can successfully operate their business as usual (BAU) functions.

The focus of this phase is to verify that AMOs can operate the accredited software in their environments with their target state configurations and have effective processes and appropriate personnel in place to manage CHESS Release I requirements for their organisation. Effective processes include management supervision, training and business continuity.

AMOs need to demonstrate that they can successfully transmit messaging for all Operational Readiness scenarios on their accredited software.

By the end of AMO Operational Readiness, an AMO should be technically and operationally ready for the transition to CHESS Release 1.

What are the prerequisites for AMO Operational Readiness?

AMO software must have successfully completed AMO Accreditation before commencing their AMO Operational Readiness assessment.

If an assessment application is submitted prior to completing AMO Accreditation, the Operational Readiness assessment will be tentatively scheduled subject to the Accreditation outcome.

How do AMOs schedule an Operational Readiness assessment?

Complete the AMO Operational Readiness Assessment Application form (available in the <u>AMO</u> <u>Operational Readiness Guide</u>) and submit to <u>CHESSreplacement@asx.com.au</u>. A member of the ASX CHESS Operations team will be in contact to discuss and confirm the assessment time.

How long will it take to perform AMO Operational Readiness?

AMO Operational Readiness scenarios are expected to be completed in a single day, on the scheduled assessment date.

What happens if an AMO Operational Readiness Assessment is not passed?

If an AMO fails their Operational Readiness assessment, ASX will notify them that reassessment is required, and will confirm which scenarios need to be completed again.

It is important to ensure assessments are scheduled early in the assessment window to provide enough time to rectify any issues and repeat the assessment if necessary.

Can a Software Provider complete an AMO Operational Assessment on an AMOs behalf?

No, AMO Operational Readiness cannot be performed by an AMO's Software Provider.

The Operational Readiness assessment must be performed on accredited software installed in the AMO's own test environment.



When can an AMO not complete a conditional AMO Operational Readiness scenario, and what are the impacts?

Conditional accreditation scenarios do not need to be completed when they relate to functionality not supported by the AMO's production software.

AMOs nominate the conditional scenarios supported by their production software on their Operational Readiness Assessment Application form. Nominated conditional scenarios must be passed to achieve accreditation.

If an AMO completes both AMO Accreditation and AMO Operational Readiness themselves (i.e. they do not rely on a Software Provider to support AMO Accreditation), do they need to perform duplicate tests when completing their AMO Operational Readiness assessment?

AMOs must execute all required Operational Readiness scenarios on accredited software on their own infrastructure/in their own environments.

Overlap of Operational Readiness scenarios with Accreditation scenarios are minimal.

Operational Readiness scenarios are designed to demonstrate the software can successfully complete a baseline of operational scenarios in its target state environment.

If an AMO does not outsource Accreditation to a Software Provider and will be completing both Accreditation and Operational Readiness in the same environment/infrastructure via the same ComplD(s), they may choose to nominate the reference number for an overlapping transaction for review in the Operational Readiness assessment, if Operational Readiness is completed within a reasonable timeframe following Accreditation.

As Operational Readiness requires an assessment of the message logs for a nominated transaction, and logs are regularly archived, ASX reserves the right to request an AMO complete/recomplete an Operational Readiness overlapping transaction if access to the log data is no longer readily available. For this reason, ASX strongly encourages AMOs to complete all of their Operational Readiness scenarios at the same time, even if it results in duplication of overlapping transactions.



5. AMO Readiness FAQs

For more information about the AMO Readiness release, please refer to the <u>CHESS Release 1 AMO</u> Readiness Release Notes.

5.1. Security Definition (d) Message

What is the Security Definition (d) message?

The Security Definition (d) message is a FIX message used to notify Approved Market Operators (AMOs) of security details held in CHESS. It includes fields such as Symbol, Issue Date, Security Status, Event Type, Event Date, and Market ID.

How is the Security Definition (d) message enabled for an AMO?

To request the Security Definition (d) message, AMOs should contact the CHESS project team by emailing CHESSreplacement@ASX.com.au.

Can the Security Definition (d) message be enabled for each COMP-ID?

Yes. Each FIX COMP-ID can be individually configured to either receive or not receive the Security Definition (d) message. This allows AMOs with multiple COMP-IDs to tailor their subscriptions. ASX strongly recommends AMOs only enable Security Details (d) message on their primary COMP-ID to avoid receiving duplicate messages.

What do AMOs need to do if they have previously confirmed they intend to enable the Security Definition (d) message?

ASX will contact AMOs who have previously confirmed they intend to enable the Security Definition (d) message.

5.2. Auxiliary FIX Endpoint

What is the Auxiliary FIX endpoint?

The Auxiliary FIX endpoint is an optional FIX Gateway connection to which AMOs can manually connect if they are unable to connect to their Main endpoint.

Are AMOs required to use the Auxiliary FIX endpoint?

No. The Main FIX endpoint has inbuilt resilience, automatically failing over to alternate availability zones when a disruption is experienced. The optional auxiliary endpoint will allow AMOs to manually connect to an alternative availability zone if they want to control the connection, however there is no requirement by ASX for AMOs to manually manage their failover connection.

What resilience is built into the Main Endpoint if AMOs choose not to enable an Auxiliary FIX endpoint?

The Main endpoint is designed with high availability (99.99%) and includes:

- deployment across three AWS availability zones
- one Primary and one or more Warm Standby instances
- automatic failover from Primary to Standby in under 60 seconds
- transparent reconnection with no loss of session state or messages.



This built-in resilience means AMOs are not required to use the Auxiliary endpoint unless they want additional manual failover control.

How do AMOs connect to the Auxiliary FIX endpoint?

AMOs are required to notify ASX that they require the optional Auxiliary endpoint. For AMOs requesting a new connection to ITE or Production, the Auxiliary endpoint can be requested on the application form contained within the CHESS Release I AMO Connectivity Guide. For AMOs with an existing ITE or production connection AMOs can request the Auxiliary endpoint by emailing CHESSreplacement@asx.com.au.

NOTE: A separate COMP-ID must be requested and configured for the Auxiliary endpoint.

When should AMOs cut over to the Auxiliary FIX endpoint?

Cutover is discretionary and typically occurs:

- when the Main endpoint is unavailable and recovery via automatic failover has failed
- during planned failover testing or business continuity scenarios
- only after confirming that the Auxiliary endpoint is active and ready.

What are the limitations of cutting over to the Auxiliary FIX endpoint that AMOs should be aware of?

Key limitations include:

- FIX session state is not shared between Main and Auxiliary endpoints. A new session must be established.
- COMP-IDs are not interchangeable between endpoints.
- AMOs must ensure no message loss during the switch and reconcile any unacknowledged messages from the primary session.
- The Auxiliary endpoint has lower availability (99.00%) compared to the Main endpoint.

5.3. Message Volumes

What volumes of messages are supported in the AMO Readiness phase?

AMOs are expected to test production messaging volumes. The ITE environment has been enhanced with performance tuning in the AMO Readiness Release to support these volumes, and AMOs can inject their own production volumes from 14 July onward without ASX assistance.

What should AMOs expect if they exceed the supported message volumes?

ITE will support production peak messaging volumes plus 100%. If message volumes exceed the supported thresholds, AMOs may experience message rejection, extended latency, or gateway throttling.

What Trades Per Second (TPS) will ASX inject during assisted volume windows?

ASX will inject production like TPS through the AMO FIX gateways during assisted injection windows in the scheduled periods. AMOs can dial up their own volumes beyond the production like TPS volumes to experience how the FIX gateway responds to processing message backpressure and the resulting latency.



What should AMOs expect when transmitting messages during ASX-assisted injections?

AMOs may observe increased latency or message queuing/backpressure as volumes increase beyond peak supported Trades Per Second.

What volumes of AMO-transmitted messages are supported during assisted injection windows?

AMOs can test volumes that meet their own business needs to understand how the FIX Gateway will behave in periods of beyond-production messaging volumes, however AMOs should consider that ITE will support production like messaging volumes before queuing/backpressure will occur and ASX will be injecting production like TPS during the volume injection windows.

Do ASX require AMOs to contact them to organise injected volumes during scheduled windows?

No. For the scheduled assisted injection windows, ASX will perform the injections automatically.

5.4. Assisted Testing Activities

What activities should AMOs test during ASX-assisted Gateway and Firewall disconnections?

AMOs should validate:

- session recovery and reconnection logic
- message replay and sequence number handling
- failover to alternate endpoints (if configured).

Do AMOs need to contact ASX to organise disconnection events during scheduled windows?

No. For the scheduled disconnection events ASX will automatically force the disconnection.

What does an AMO need to do if they require scheduled assisted testing to continue into the contingency period?

AMOs must notify ASX in writing (via CHESSreplacement@asx.com.au) with their request and proposed timing. ASX requires a minimum 24 hours' notice to coordinate additional assisted testing events. Confirmed scheduling is subject to resource availability.

How can an AMO organise an ad hoc assisted testing activity once scheduled windows have concluded?

AMOs must submit a request to CHESSreplacement@asx.com.au with at least 24 hours' notice, specifying the test type, timing, and support required. ASX will confirm availability and coordinate accordingly

5.5. Known Issues

What issues from the known issues log are being closed through the AMO Readiness release?

For more information about the known issues being closed in the AMO Readiness release, please refer to the CHESS Release 1 AMO Readiness Release Notes.



When will ASX address known issues not closed during the AMO Readiness release or identified during the phase?

Fixes for outstanding issues identified in the CHESS Release 1 Known Issues Log as at the commencement of the AMO Readiness release, are planned to be included in an AMO Readiness release patch during the month of July 2025.

ASX reserves the right to schedule additional maintenance releases, which are generally scheduled in the late afternoon of a business day. AMOs and their Software Providers will be advised when a maintenance window is scheduled, and which known issue resolutions are being deployed.

5.6. Alternate File Ingestion Interface (AFII)

What is the Alternate File Ingestion Interface (AFII)?

The AFII is a business continuity mechanism that allows Approved Market Operators (AMOs) to submit FIX-format files containing TradeCaptureReport (AE) and MarketDataSnapshotFullRefresh (W) messages, via SFTP when they are unable to connect to the FIX Gateway. It is used as a secondary channel to enable trade registration and pricing messages to be submitted to the Release 1 Clearing Service during periods where AMOs are unable to connect to and transmit messages directly to the FIX gateway.

AMOs will be provisioned with access to designated Upload (trade/price file) and Download (response file) folders on the SFTP host.

What are the pre-requisites to connect via SFTP?

AMOs will need to provide the ASX with a public IP Address, and public SSH Key generated using ED25519 or 2K/4K RSA SSH2.

The ASX will provide AMOs with a SFTP Username, SFTP Host details (it is recommended that AMOs use the domain name to connect), and a passphrase to encrypt compressed files for upload.

What format is required for the AFII file?

The file must be in FIX format and can include multiple message types (e.g. TradeCaptureReport (AE) for Trade Capture, MarketDataSnapshotFullRefresh (W) for Market Data).

The file must be compressed into an encrypted .zip file (using the ASX supplied passphrase) for upload to the SFTP host.

File names must be unique. Refer to the CHESS Release 1 AMO User Technical Document for specific file naming requirements.

When is an AMO required to use the AFII?

AFII is used when an AMO cannot connect to the FIX Gateway and ASX CHESS Operations has approved the use of AFII.

What frequency are AMOs expected to transmit files through the AFII intraday?

Once AFII use is approved, AMOs must:

- submit the first file within one hour of the decision by ASX CHESS Operations to enable the AFII.
- continue submitting files at least hourly until either FIX Gateway reconnection or end-of-day (7:00 PM AET)
- ensure all trades up to market close are submitted by 5:00 PM AET to enable CHESS to process
 potential large quantities of messages received on the close
- ensure all trades for the day are submitted before 7:00 PM AET.



Are there limits to how many files can be uploaded for processing through the AFII?

There are no limits to the number of files that can be uploaded for processing through the AFII. AMOs can submit multiple files into the SFTP folder at once for processing, as long as they have unique file names. Files will be processed sequentially by the AFII and response files will be generated and transmitted as each file has completed processing.

Can both MarketDataSnapshotFullRefresh (W) records and TradeCaptureReport (AE) records be included in a single AFII file?

Yes. The AFII supports bundling both TradeCaptureReport (AE) and MarketDataSnapshotFullRefresh (W) messages in a single file.

Where are the technical specifications for the AFII located?

They are detailed in the Release 1 AMO User Technical Documentation.

Do ASX require AMOs to contact them to organise AFII processing during scheduled windows?

Yes. AFII is not always active. AMOs must contact ASX to activate the interface and coordinate the required activities.



6. ITE Open FAQs

For more information about the ITE Open release, please refer to the CHESS Release 1 Release Notes.

Who is Release 1 ITE most relevant to during the initial AMO build and test phase?

AMOs and their Software Providers.

As an AMO, what am I expected to do in Release 1 ITE?

AMOs or their Software Providers will need to connect to Release 1 ITE to complete the following Industry Test phase activities:

- Finalise their software development in the Build and Test phase
- Verify their software can operate at the size and scale required for their organisation in all business as usual and disaster recovery scenarios in the Readiness phase
- Verify their software sends and consumes messages that conform to the specifications in the Accreditation phase, and
- Operationalise their integrated systems and processes using accredited software in the Operational Readiness phase.

As a participant what am I expected to do?

Initially, Participants will not need to do anything in Release 1 ITE as it will be supporting AMOs or their Software Providers with Release 1 Industry Test Phase Activities.

Participants will be required to connect to Release 1 ITE for the Clearing Regression Test phase, by connecting to a current CHESS Test Environment that will be integrated to Release 1 ITE. Details relating to Clearing Regression Test activities will be provided in the Release 1 Clearing Regression guide.

What is ITE?

ITE stands for Industry Test Environment and is a CHESS project test environment that will be iteratively developed to production-grade standards. Release 1 ITE supports AMOs and their Software Providers performing industry testing in the following Industry Test phases:

- AMO Build and Test
- AMO Readiness
- AMO Accreditation
- AMO Operational Readiness
- Clearing Regression Testing

A separate environment will be provisioned for AMOs to perform parallel testing and implementation dress rehearsals.

For Clearing Regression activities, note that Release 1 ITE will be integrated with an existing CHESS test environment, and Clearing Participants will need to connect to that test environment.

When can AMOs and their Software Providers connect to and interact with Release 1 ITE?

AMOs and their Software Providers will be able to connect to Release 1 ITE through the Trade Acceptance Service, which is available between 7:10 – 19:00 AET (Sydney time) on trading days. Technical support for Release 1 ITE is available between 9:00 – 17:00 AET (Sydney time) on trading days.



How do I connect to Release 1 ITE?

Release 1 ITE Connectivity for AMO or their Software Providers instructions can be found in the CHESS Release 1 AMO Connectivity Guide.

Who can I contact if I am having issues connecting to Release 1 ITE?

Please verify the system status of Release 1 ITE <u>here</u>. If there is no information available relating to a status that impacts connectivity please contact our customer technical support team by raising an online request via <u>ASXOnline</u> or emailing <u>CHESSreplacement@asx.com.au</u>.

What messages are supported in Release 1 ITE?

AMO messages accepted in Release 1 ITE are in FIX 5.0 format, with accepted message types and values outlined in the CHESS Release 1 AMO User Technical Documentation.

Where can I find the current status of Release 1 ITE?

CHESS Project Release 1 - Industry Test Environment

Where do I find information relating to known issues in Release 1 ITE?

CHESS Release 1 Known Issues Log

How can I raise a new issue?

To raise a query or issue, contact our technical support team by raising an online request via <u>ASXOnline</u> or emailing <u>CHESSreplacement@asx.com.au</u>.

If I raise an issue, how will I know when it is resolved?

Once you raise an issue, a member of the technical support team will contact you and keep you updated regarding progress. If the issue identified impacts the broader industry it will be published in the <u>Known</u> <u>Issues Log</u>.

Disclaimer

This document provides general information only and may be subject to change at any time without notice. ASX Limited (ABN 98 008 624 691) and its related bodies corporate ("ASX") makes no representation or warranty with respect to the accuracy, reliability or completeness of the information. To the extent permitted by law, ASX and its employees, officers and contractors shall not be liable for any loss or damage arising in any way (including by way of negligence) from or in connection with any information provided or omitted, or from anyone acting or refraining to act in reliance on this information.

© Copyright ASX Operations Pty Limited ABN 42 004 523 782. All rights reserved 2025.