



CHES Replacement Project

**Software Provider Readiness
Working Group**

27 July 2022

Important Information

Competition Law Policy

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

Agenda

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- ITE1 Code Release v1.3
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- Connectivity & Failover Update
-
- Accreditation Update
-
- Q&A
-
- Forward Schedule
-

ITE1 Code Release v1.3

ITE1 Updates – Functionality

Code Drop v1.3

Key Points

> Version 1.3 is scheduled to be available in Industry Test Environment 1 (ITE1) on Monday 1 August 2022

(ITE1 will not be available on Friday 29 July as part of the deployment)

- ITE1 (v1.3) will be the release candidate for initial message accreditation
- Re-instates Change of Controlling Participant and Class mergers
- VMware Ledger upgrade – including Ledger API error code changes
- Multiple bug fixes and resolved defects - updated in the [Known Issues List](#)
- Updates to the test kits for ITE1
- Enhancements to the CHES UI
- Additional Assisted Testing scenarios available
- Changes to self-service tools
- One schema change (sett_107)
- New AMO functionality (Password change)
- Performance enhancements
- Release will result in a full transactional clear down/re-set of data

ITE1 Updates – Test kits

Code Drop v1.3

- > Updated test kits were sent to all software providers on 25 July
 - Kits were sent to the contacts on ITE1 order form
- > Notification of environment updates (ITE1) are sent to the group e-mail on your ITE1 order form

File	Changed	Overview of change
corporate-actions	Yes	<ul style="list-style-type: none"> • New corporate action – Priority Issue added to allow testing for BOM codes – XZ (ex priority) and CZ (cum priority). • Re-instated Class Merger corporate action events. • Updated Stock Split corporate action (for accreditation scenarios) to alternate between 2 underlying securities allowing enough time for settlement instructions to settle. • Re-purposed 06 old standalone security code change corporate action events by updating their effective dates in future to ensure these corporate actions are available post August 2022.
eod-prices_T-2	Yes	<ul style="list-style-type: none"> • All prices refreshed.
mfund-roles	Yes	<ul style="list-style-type: none"> • Added mFundOrder and mFundSettlement roles to Settlement only actors 20XX2 (where XX is test kit number).
payment-facilities_csv_to_xml_mfunds	Yes	<ul style="list-style-type: none"> • Added mFundApplication and mFundRedemption accounts for retrospective 20XX2 actors.
securities	Yes	<ul style="list-style-type: none"> • Updated partly paid securities to ensure the security does not move into a closed security state before the corresponding Call corporate action is active.

- > Issuers with code 35XX0 do not support the issuer sub-register

ITE1 Updates – Test Tooling

Code Drop v1.3

> Self-Service Tools

Test tool	Change	Why?
All Self-service tools - ISO & FIX messages	Meaningful error description for timeout error (vs JAVA errors)	<p>The current error description for the timeout configured for the Self-service tools was not meaningful for the user to assess the root cause. A change has been made to make these error description meaningful and applicable across all Self-service tools:</p> <p>For ISO message workflow:</p> <ul style="list-style-type: none">• If a Technical ACK is received, but no business ACK is received• If neither Technical or Business ACK is received <p>For FIX message workflow (as FIX doesn't separate between Technical & Business Ack):</p> <ul style="list-style-type: none">• If either Technical or Business ACK is NOT received
Transfer & Conversion (hold_211)	CSV template updated	<p>Based on enquiries from the customer and internal review of the CSV template, these are the changes made to the Self-service tool for Transfer & Conversion for Share Registry (hold_211):</p> <ul style="list-style-type: none">• Added a new column - 'NumOfBasisMovements' to the CSV template• Updated the internal Integration requirements to align with the implemented and published CSV template

ITE1 Updates – Assisted Testing

Code Drop v1.3

> Auto-Responder

Test tool	Change	Why?
Collateral Creation / Removal (CMM & ETO) Auto responder (pldg_301)	Update Auto-responder logic to support non-3rd Party ETO clearing workflow	<p>Current configuration restricted Software Providers from testing non-3rd party ETO clearing workflows, as a result the following changes were made:</p> <ol style="list-style-type: none"> 1) The auto-responder will no longer respond to requests sent to clearing members 01xx0, 01xx1, 01xx2, 01xx3, 03xx0. 2) Actor 99000 has been configured for use with the auto-responder. Participants can use all test kit assigned Clearing and Settlement Participant actors (01xx0, 01xx1, 01xx2, 01xx3, 03xx0 and 03xx1) to receive pldg_301 messages. <p>xx = Test kit number</p>

> Auto-Injector

Test tool	Change	Why?
EOD price auto-injector (CDEP) - FIX W	Test tool logic updated	<p>EOD Price has been re-introduced to support Standard Settlement Price (SSP) adjustment testing:</p> <ul style="list-style-type: none"> • All securities across all test kits (including base and deferred securities) will be seeded with an initial EOD price (i.e. the market loader remains unchanged); • EOD Price auto-injector will update prices excluding deferred corporate action securities in Participant kits

ITE1 Updates – Assisted Testing

Code Drop v1.3

Assisted Testing

- > The following ASX Assisted Testing will be facilitated by CTS and available after the release of v1.3 into ITE1 (not before 15 August)
 - Broadcast Notification – [Weekly \(Monday 3pm\)](#)
 - Extend Settlement Cut-Off – [Weekly \(Wednesday 11am\)](#)
 - Change Account Type - [Upon request](#)
 - Cancel Settlement – [Initially bi-weekly, moving to weekly during accreditation \(Friday 11am\)](#)
- > The following ASX Assisted Test Tool will remain unavailable until a future release:
 - Run Default (Back-Out Algorithm)

ITE1 Updates – CHESS UI functional changes

Code Drop v1.3

CHESS UI

- > **Sponsoring Participants**
 - The Account screen now has pre-filters so you are required to search before the results are retrieved
- **Payment Providers**
 - New “Batch Funds Obligation” screen to display a table of sett_120 messages for a given Payment Provider
 - New “RTGS Funds Movement” screen to display a table of sett_137 messages for a given Payment Provider
- > **Bulk Upload capability**
 - Distribution Advice Notifications, Holding Adjustments, mFund Order Notifications, Funds Obligation Status Advice
- > **Miscellaneous changes**
 - mFund investor data (standalone entry) and consolidated view by investor
 - Date formats now available via date picker (vs. YYYY-MM-DD)

ITE1 Updates – Miscellaneous

Code Drop v1.3

- > Performance Test Tools will be made available in ITE1 v1.3 **post** message accreditation completion:
 - Trade Ingest (Performant)
 - Holding Adjustment (Performant)

Connectivity & Failover Update

ITE1 Update – by Connectivity Channel

Environment Status

Ledger API

- > New JAVA classes, available via FTP server (available now)
- > Ledger API error codes, new codes and recommended error handling detailed in technical documentation
- > Ledger offset, ensure re-set after the release
- > Token expiry remains 24 hours as default, Ledger API clients can request this to be reduced to 15 minutes (production state) when they are ready to test (request via CTS which can then be scheduled)
- > Recommendation for developers to introduce a configurable limit on the number of in-flight command (a.k.a send window)
 - Regulates the submission of commands to the ledger reducing the occurrences of back pressure

AMQP

- > AMQP applications to have long running connections and sessions
 - Connections can be 24x7 (ASX advise of any weekend outages)
 - Applications can connect / disconnect in-line with operating hours

Failover

ITE1 Schedule

- > The schedule below has been established for failing over components of CHES Replacement to facilitate recovery testing
- > Connectivity failover re-scheduled from September (CTS will notify)

Connectivity Method	Frequency in ITE1	Commencement
AMQP	Failover - ALC to SDC <ul style="list-style-type: none"> All AMQ brokers failover - Tuesday & Thursday at 2.00pm. Fail back - SDC to ALC <ul style="list-style-type: none"> All AMQP brokers fail back - Tuesday & Thursday at 5.00pm. 	Failover testing will be applicable on code version 1.3 at a time when all participants are settled in the environment.
Ledger API	ALC <ul style="list-style-type: none"> Node 1 disconnects - Wednesday & Friday at 2.00-2:30pm. SDC <ul style="list-style-type: none"> Node 2 disconnects - Wednesday & Friday at 3.00-3.30pm. 	Failover testing will be available on code version 1.3 at a time when all participants are settled in the environment.
FIX Gateway	Failover - ALC to SDC <ul style="list-style-type: none"> FIX GW failover - Friday at 2.00pm. Fail back - SDC to ALC <ul style="list-style-type: none"> FIX GW failover - Friday after business hours. 	Failover testing will be available on code version 1.3 at a time when all participants are settled in the environment.
SWIFTNet	SWIFTNet failover will not be part of failover testing in ITE1.	Not applicable in ITE1.
CHES UI	CHES UI failover will not be part of failover testing in ITE1.	Not applicable in ITE1.

Update on Accreditation

Accreditation

Overview

Phased Accreditation

- > ASX is now implementing a two stage accreditation process - Software Providers are to undertake an initial messaging accreditation process on v1.3 of the application, and final accreditation to be performed on the go live production candidate closer to the implementation date.
- > This change allows for an earlier readiness checkpoint on Software Providers. Final accreditation allows time to address any additional delivery and defects and provides the maximum protection for ensuring the stability and confidence for the clearing and settlement facility.
- > Focus of this accreditation phase is on functional messaging only (connectivity accreditation is not part of initial accreditation).
- > ASX are finalising testing on the accreditation process which includes the use of a third party product used by ASX for other systems and with other Market Infrastructure in the post trade space.
- > Initial accreditation phase will commence subject to final internal testing including with pilot clients during September.
- > ASX will provide an updated checklist application forms at the end of August reflecting the change in scope of accreditation.
- > Customers will be advised once the revised initial accreditation forms are available (targeted end of August)
- > ASX are requesting software providers to provide an indicative date on when they plan to undertake message accreditation in the Oct'22 – Dec'22 window. E-mail to CHESSReplacement@asx.com.au Subject: "Message Accreditation" supplying software application name and preferred dates (M-F).

Accreditation

Accreditation Results:

- > ASX is not setting a pass/fail criteria - ASX will not be failing software at this milestone.
- > Each organisation will be required to attempt one accreditation per software application.
- > Multiple attempts at accreditation can be requested at this phase (pending resourcing). Software providers wishing to retest can do so in full or on a case by case basis
- > Results will be provided directly to the participating organisation only, it will not be shared with the customers of third party vendors (however vendors may wish to do so). Results will be available, as with all project collateral, to the regulatory agencies.
- > ASX may choose to publish metrics on an anonymised basis.

Q&A

Forward Schedule

Stakeholder Engagement – Next Steps

Upcoming Dates

Engagement

- > Implementation & Transition Working Group – 2pm, 3 August 2022
- > Next Software Provider Readiness Working Group - September (TBC)
- > Replan Process - engagement through working groups (August)

Review & Feedback

- > Slides and Q&A will be published on the CHES Replacement webpage
- > Provide preferred dates for initial accreditation
- > Provide feedback by contacting **CHESReplacement@asx.com.au** – use “SPR – WG” as the subject heading

Market Documentation

- > July End of Month documentation release – **29 July 2022**
- > ITE1 (v1.3) Code Drop Notes – **1 August 2022**

Thank you.



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