



CHES Replacement Project

**Software Provider Readiness
Working Group**

8 December 2021

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

-
- ITE1 - Technical documentation update
-
- ITE1 - Open update
-
- ITE1 - ISO20022 update
-
- Technical Accreditation update
-
- Q&A
-
- Forward Schedule
-

ITE1 Update - Technical documentation update

Technical documentation – Industry Test Environment

<https://asxchessreplacement.atlassian.net/wiki/spaces/CSP/pages/23233105>

> Updated pages to support testing in ITE1 for software providers:

ITE1 Known Issues & Limitations **New**

ITE1 Application Forms

Support for ITE

ITE1 Test Data

ITE1 Test Tools

New

ITE1 Self-Service Tools

ITE1 Self-Service for Clearing Participants
ITE1 Self-Service for Sponsoring Participants
ITE1 Self-Service for Issuer (Registries)
ITE1 Self-Service for Payment Providers
ITE1 Self-Service for PISPs

New

ITE1 Auto-responders

ITE1 Bilateral Demand Transfer
ITE1 Bilateral Demand Settlement Instruction
ITE1 Issuer to Participant Transfer / Conversion
ITE1 SRN / SRN Balance Enquiry
ITE1 Collateral Creation / Removal
ITE1 Cash Market Margin (CMM) Change Margin Settlement Amount
ITE1 Bilateral Settlement Instruction
ITE1 Investor Data - Bank Account Notification
ITE1 Payment Provider Authorisation
ITE1 Bid Election / Election Withdrawal
ITE1 Reserve Bank Information & Transfer System (RITS)
ITE1 mFund Application and Redemption
ITE1 DRP/BSP Election and Election Enquiry

New

ITE1 Auto Injectors

ITE1 Bid Finalisation of Takeover and Buybacks
ITE1 Code Change
ITE1 Daily Margin Settlement Advice

New

ITE1 ASX Assisted Testing

Update

Guide to Testing Services

Section 01 - Introduction to the Guide to Testing Services
Section 02 - Test Environment Overview
Section 03 - Access to Industry Test Environments (ITEs)
Section 04 - Test Kits for ITE1
Section 05 - Test Tooling
Section 06 - Performance Testing
Section 07 - Accreditation Testing for ITE1
Section 08 - Inflight Migration Testing (for ITE-M only) **New**

New

Accreditation Guide

Section 01 - Introduction to Accreditation Guide
Section 02 - ASX Accreditation Process
Section 03 - Technical Accreditation Testing
Section 04 - Connectivity Accreditation
Section 05 - Messaging Accreditation Testing
Section 06 - Supplementary Information for Messaging Accreditation
Messaging Accreditation Scenarios
CHESS User by Feature, Message

New

- [ITE1 release notes](#)
- [3 Dec - What's New](#)
- [30 Nov - What's New](#)
- [15 Nov – What's New](#)

Technical documentation – ITE Known Issues / Limitations

<https://asxchessreplacement.atlassian.net/wiki/spaces/CSP/pages/1688473384>

The screenshot shows a web page with three tabs: 'Customer Development Environment (CDE)', 'Industry Test Environment (ITE1)' (marked as 'New'), and 'Industry Test Environment (ITE2)'. Below the tabs is a 'Latest Release Notes' section with a yellow warning icon and text: 'Corporate action data will be seeded from November 30 and available for use from December 13 to end-February. Subsequent corporate actions to be seeded post February will be communicated before February 2022. Refer to ITE1 Release Notes for further information.' Below this is a list of sections: 'Future Scope' (blue bar), 'Limitations' (purple bar), 'Observed Behaviours' (yellow bar), 'Defects' (orange bar), and 'Resolved Defects' (green bar). Five callout boxes provide definitions for these sections: 'Future Scope' (Functionality available in a subsequent release), 'Limitations' (Environment constraints to be aware of when testing), 'Observed Behaviours' (Issues that do not prevent functional tests, generally with a workaround), 'Defects' (Issues that prevent or hinder functional tests, generally without a workaround), and 'Resolved Defects' (Environment specific list of issues resolved).

Future Scope:
Functionality available in a subsequent release.

Observed Behaviours:
Issues that do not prevent functional tests, generally with a workaround.

Limitations:
Environment constraints to be aware of when testing.

Defects:
Issues that prevent or hinder functional tests, generally without a workaround.

Resolved Defects:
Environment specific list of issues resolved.

!! TIP = Search the page for 'Identified in ITE1' for specific items for ITE1

Industry testing supporting documentation

Significant documentation to support ITE1 already published

Documentation already published:

- > Industry Test Strategy – **Jun 21**
- > Connectivity Guide (ITE1) – **Jul 21**
- > Messaging Accreditation (netting & settlement updates) – **Aug 21**
- > Guide to Testing Services (ITE1) – **Sep 21**
- > Failover & Recovery details (ITE1) – **Sep 21**
- > Connectivity Guide (ITE-M) – **Sep 21**
- > Connectivity Guide (ITE2) – **Sep 21**
- > CHES UI (mFunds) – **Sep 21**
- > Guide to Testing Services (uplift) – **Nov 21**
- > Accreditation Guide – **Nov 21**

Upcoming documentation (mid-Dec):

- > Ops Readiness Scenarios – **Dec 21**
- > Cutover & Migration Strategy – **Dec 21**

Upcoming key documentation milestones

- > User Testing Guide (ITE2) – **Jan 22**
- > Guide to Testing Services (ITE2) – **Jan 22**
- > Industry Wide Testing HL plan – **May 22**
- > Market Dress Rehearsal (MDR) details – **Jul 22**
- > Industry Wide Testing details – **Sep 22**

The forward release plan will continue to be updated highlighting when key deliverables and topics will be published to the market.

Refer to Section 6 of the Industry Test Plan.

ITE1 - Open update

Industry test environment

ITE1 update – All software providers

ITE1 opened at the end of November and now available for software providers to start transitioning from CDE to ITE1

- > Transition period runs from Dec'21 to the end Feb'22
- > ASX is now contacting software providers to confirm; connectivity, test kit distribution and certificate distribution
- > ITE1 opens with full clearing and settlement functionality (corporate action events from Jan'22)
- > Guide to testing services [here](#)
- > Software providers should note that the test kits are unique to their organisation and they will can only transact using data in that test kits, test kit overview [here](#)
- > Self-serve test tools may have format changes from CDE – check the latest formats [here](#)
- > NEW - Assisted testing for ASX initiated workflow – details [here](#)
- > Request for support e-mails to contain CDE or ITE1 to assist with queries, details [here](#)
- > Reduced non-Production support for ITE1 (and CDE) 20-31 Dec (inclusive)

Industry test environment

ITE1 update – Useful links

Ledger API

- > Applications must implement new token authorisation process, details [here](#)
- > Removal of package ID – improves performance of the initial connectivity to the ledger, details [here](#)
- > New definition of command ID & workflow ID format, details [here](#)
- > Heads up – new Ledger error codes in DAML 1.18 (released Q1'22), details [here](#)

AMQP

- > Introduction of new reporting queues, details [here](#)
- > Requirement to incorporate AMQP properties (BizMsgIdr & Correlation ID) details [here](#)

CHESS UI

- > [User guide](#) and recommendations for setting up users in ITE1, details [here](#)
- > Additional IP & Port added for authentication, details [here](#)

ITE1 – ISO 20022 update

Industry test environment

ISO 20022

Software providers must ensure their applications have the flexibility to support the `_!p` suffix found in the business service suffix, details [here](#)

The business service found in the BAH, as an example; **hold_201_001_01_!p**

Constructed as follows;

- > **ASX Message Id** – hold_201
- > **Release and Version** - 001_01
- > **Suffix** (`_!p`)

`_!p` = Pilot - Should be supported in all test environments (e.g. hold_201_001_01_!p)

No suffix = Production - The lack of an environment indicator should be supported in production only (e.g. hold_201_001_01).

Application will be required to demonstrate this capability in technical accreditation

Pagination

Applicable Messages - Reporting

Software providers must ensure their applications support pagination

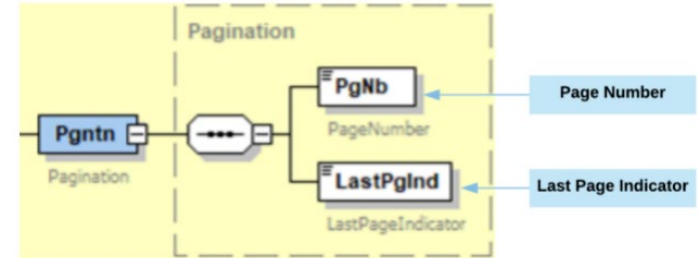
Messages will result in pagination where the maximum message size limit is exceeded.

A number of reports support pagination;

- Rptg_604 - HBAL (Holder Balance)
- Rptg_604 - HSBL (Holding Subposition Balance)
- Rptg_604 - CEBL (Cum Entitlement Balance)
- Rptg_605 - HMVT (Holding Movement)
- Rptg_605 - CEMV (Cum Entitlement Movement)
- Rptg_608 - OBLG (Obligation Status Report)
- Rptg_609 - NNDP (Netted Obligation Report)

Report size has been configured as ~32kb in ITE1 and this is the proposed file size through to production.

Details of pagination can be found [here](#)



1. Page Number <PgNb>: indicates each page of the paginated message.

2. Last Page Indicator <LastPgInd>: indicates whether the page of the paginated message is the last page.

true = last message (page)

false = all other paginated messages (pages)

Accreditation Update

Technical Accreditation

Recap

What was covered in October SPR working Group?

> Technical Accreditation

- Two components, Connectivity & Messaging Accreditation
- Mandatory for all software providers
- Test environment – ITE1
- Scheduled end April – mid July 2022

> Messaging Accreditation

- Scenario files for CHES user type
- Scenarios grouped by features
- Mandatory / Optional scenarios
- Required Fields for scenarios

> Structure of Messaging Accreditation Scenarios

Technical Accreditation

Agenda

Today's session

- > Uplifted version of Messaging Accreditation Scenarios
- > Counterparty Scenarios
- > Test Tools for Messaging Accreditation
- > Assistance Required Scenarios
- > Additional Information
 - BizMsg ID
 - DRP Mandatory Scenario
- > Introduction to Technical Accreditation Guide
- > Action items for Software providers

Technical Accreditation

Messaging Accreditation Scenarios

Uplifted version of Scenarios

- > Header in each Sheet
- > More details in Supplementary Information
- > Previously executed scenarios can be used as prerequisite but not mandatory
- > Test Tools that can be used
- > RGID scenarios moved with Holding Transfers
- > RGID scenarios moved with Holding Transfers Scenarios (Clearing and Settlement, Settlement and Account Participants)
- > BDSI Payment Facility scenario is moved with BDSI scenarios (Clearing and Settlement and Settlement Participants)
- > Assistance Required Scenarios are marked
- > Scenarios are marked as Mandatory / Optional

| CHESS Replacement - Messaging Accreditation Scenarios | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|---|--|---------------|---------|----------|-----------------|--------|---------------------------|----------|---|---|---|---|--|----------|---|--|--|---|--|
| For CHESS User | | Clearing & Settlement Participant | | | | | | | | | | | | | | | | | | | | | |
| Accounts Account Creation Account Modification Account and Holder Locking and Unlocking Account Holding Transfers Account Closures Account Transfers Account Deletions Account Suspensions Account Reactivations Account Status Changes Account Information Account Verification Account Security Account Recovery Account Migration Account Integration Account Interactions Account Reporting Account Auditing Account Compliance Account Risk Management Account Fraud Detection Account Dispute Resolution Account Customer Support Account Marketing Account Analytics Account Innovation Account Future | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Description: Scenarios related to Transfer / Conversions between Subregistrars and SAs Enquiry</p> <p>CHESS User Type: Clearing and Settlement Participant</p> <p>Functional Specification: Using Transfer Technical Specification</p> <p>Mandatory/Optional: Mandatory</p> <p>Scenario requiring assistance: CS-HT-06</p> <p>Tool Tools: Issuer to Participant Transfer / Conversion Auto-responder SA Enquiry auto-responder</p> <p>Additional Information: RGID Account required to execute scenarios CS-HT-03, CS-HT-04, CS-HT-05, CS-HT-06, CS-HT-12, CS-HT-13, CS-HT-14 and CS-HT-15 Prior to proceeding with below scenarios refer to: - tool kit generator to determine required security codes - accreditation corporate action events and timetable where Basis of Moment is applicable - accreditation events timetable - prerequisite requirements (if applicable) as outlined in supplementary information - when using auto-responder, please refer to auto-responder rules</p> | | | | | | | | | | | | | | | | | | | | | | | |
| Scenario Code | Feature | Scenario | Required Fields | Values | Supplementary Information | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Scenario Code</th> <th>Feature</th> <th>Scenario</th> <th>Required Fields</th> <th>Values</th> <th>Supplementary Information</th> </tr> </thead> <tbody> <tr> <td>CS-HT-03</td> <td>Registration Identifier (RGID) Account Creation</td> <td>Send request to create an Account with Account Type Registration Identifier where Ownership Type is Single and Holder Type is Company</td> <td>Account Elements Transaction ID Instruction Type Account Type Account Name Ownership Type Registered Address (Australian address) Address Line 1 Town Name Post Code State (Country Sub-Division) Country Residency Indicator Holder Elements (Single - Company) Holder Type Holder Name</td> <td>New Account Opening (NEWAC) Registration Identifier (RGID) Single</td> <td>Note Account created in this scenario, can be used in CS-HT-03, CS-HT-04, CS-HT-05, CS-HT-06, CS-HT-12, CS-HT-13, CS-HT-14 and CS-HT-15</td> </tr> <tr> <td>CS-HT-03</td> <td>Registration Identifier (RGID) Account Creation</td> <td>Send request to create an Account with Account Type Registration Identifier where Ownership Type is Individual and Holder Type is Individual</td> <td>Account Elements Transaction ID Instruction Type Account Type Account Name Ownership Type Registered Address (Australian address) Address Line 1 Town Name Post Code State (Country Sub-Division) Country Residency Indicator Holder Elements (Single - Individual) Holder Type Holder Name</td> <td>New Account Opening (NEWAC) Registration Identifier (RGID) Single</td> <td>Note Account created in this scenario, can be used in CS-HT-03, CS-HT-04, CS-HT-05, CS-HT-06, CS-HT-12, CS-HT-13, CS-HT-14 and CS-HT-15</td> </tr> </tbody> </table> | | | | | | Scenario Code | Feature | Scenario | Required Fields | Values | Supplementary Information | CS-HT-03 | Registration Identifier (RGID) Account Creation | Send request to create an Account with Account Type Registration Identifier where Ownership Type is Single and Holder Type is Company | Account Elements Transaction ID Instruction Type Account Type Account Name Ownership Type Registered Address (Australian address) Address Line 1 Town Name Post Code State (Country Sub-Division) Country Residency Indicator Holder Elements (Single - Company) Holder Type Holder Name | New Account Opening (NEWAC) Registration Identifier (RGID) Single | Note Account created in this scenario, can be used in CS-HT-03, CS-HT-04, CS-HT-05, CS-HT-06, CS-HT-12, CS-HT-13, CS-HT-14 and CS-HT-15 | CS-HT-03 | Registration Identifier (RGID) Account Creation | Send request to create an Account with Account Type Registration Identifier where Ownership Type is Individual and Holder Type is Individual | Account Elements Transaction ID Instruction Type Account Type Account Name Ownership Type Registered Address (Australian address) Address Line 1 Town Name Post Code State (Country Sub-Division) Country Residency Indicator Holder Elements (Single - Individual) Holder Type Holder Name | New Account Opening (NEWAC) Registration Identifier (RGID) Single | Note Account created in this scenario, can be used in CS-HT-03, CS-HT-04, CS-HT-05, CS-HT-06, CS-HT-12, CS-HT-13, CS-HT-14 and CS-HT-15 |
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Technical Accreditation

Counterparty Scenarios

How to read and execute counterparty scenarios?

- > Where user need to act as counterparty/other type of CHES user
- > Messages are marked in Green
- > Important to read Supplementary Information

| Account Modification | | Account Modification Request | | Prerequisites | |
|----------------------|--|---------------------------------|--------------------------|---------------------------------|--|
| | | Transaction Id | | - Account (HIN) must exist with | |
| | | Account Identifier (HIN) | | - Active Status of Active | |
| | | Designation | | | |
| | | Account Name | | | |
| | | Modified Account Parties Fields | | | |
| | | MultiAccountPlan | | | |
| | | Action | Update Attributes (UPDT) | | |
| | | Residency Indicator | | | |
| | | Communication Preference | | | |
| | | Email Address | | | |
| | | Mobile Number | | | |

| Change of Controlling Participant | | Change of Controlling Participant Request | | Requesting Participant | |
|-----------------------------------|--|---|--|----------------------------------|--|
| | | Transaction Id | | CSP | |
| | | Account Identifier (HIN) | | CSP | |
| | | Controlling Participant | BIC / UIC | Existing Controlling Participant | |
| | | New Controlling Participant | BIC / UIC | CSP | |
| | | Status Advice - Authorisation | | CSP | |
| CS-AC-24 | Change of Controlling Participant | Transaction Id | | CSP | |
| | As Requesting Participant, send a Change of Controlling Participant Request and request Accepted by Controlling Participant where holding balance is greater than zero | Counterparty Id | | CSP | |
| | | Account Identifier (HIN) | | CSP | |
| | | Authorised | AUTD (Authorised) (Populated in Acknowledged Accepted check/accept/In Processing Status «ProgSts») | CSP | |

Technical Accreditation

Test Tools

Tools that can help execute the scenarios

- > ITE1 Test Tools will be available for Accreditation
- > Self serve tool – Self-Service Tools are provided by ASX to support vendors and participants simulate events where a counter-party is required
- > Auto Responders – An Auto-responder feature is provided by the ASX to help vendors and participants simulate events where a Counter-party response is required

Alternate to Test Tools

- > Different UIC (from Test kit) can also be used to act as counterparty
- > CHES UI - Can be used as an alternative to the Self-Service Tools

Technical Accreditation

Assistance Required

ASX Assistance is required

- > ASX Assistance is required to execute the scenarios
- > Scenarios are marked in sheet header and in Supplementary Information
- > List of assistance required scenarios for each CHES user type will be part of Scenarios Timelines (Technical Accreditation Guide)

| Corporate Action | | | | | |
|---|---|---|--|--|---|
| Scenario Code | Feature | Scenario | Required Fields | Value | Supplementary Information |
| Description: Scenarios related to Class Merger adjustments received by Issuer Registry / Holding Adjustments sent by Issuer Registry | | | | | |
| CHES User Type: Issuer (Registry) | | | | | |
| Functional Specification: Corporate Actions Functional Specifications | | | | | |
| Mandatory/Optional: Mandatory | | | | | |
| Scenario/s requiring assistance: IR-CA-02, IR-CA-03 | | | | | |
| Test Tools: N/A | | | | | |
| Additional Information: Prior to proceeding with below scenarios refer to: - test kit generator to determine required security codes - accreditation corporate action events and timetable - accreditation scenario timeline - prerequisite requirements (if applicable) as outlined in supplementary information | | | | | |
| Security Sub-register Status Notification | | | | | |
| IR-CA-03 | Security Sub-register Status Notification | Receive a Securities Notification, advising of action for the change in Sub-register status for specified Security Code | Funds Obligation Origin Transaction Id Security Status Security Code | One of the following: Sub-register Reopened (REOP) Sub-register Suspended (SUSP) Sub-register Closed (CLOS) Sub-register Archived (ARCH) | Assistance Required Request ASX to initiate this flow |

Technical Accreditation

Additional Information

Business Message ID

- > This is an existing process where software providers need to provide BizMsgID as evidence of test
- > ASX invested in automating the verification process
- > Software providers are no longer required to provide BizMsgID as evidence of test
- > ASX reserves the right to contact software providers to ask about evidence for randomly picked scenarios

DRP/BSP Mandatory Scenario

- > DRP/BSP is an optional function for
 - Clearing and Settlement Participants
 - Settlement Only Participants
 - Account Participants
- > DRP/BSP scenarios are optional for above mentioned participants
- > Issuer (Registry) Initiated DRP/BSP Election Cancellation scenario is **Mandatory**
- > For Issuer (Registry) DRP/BSP function and all scenarios are mandatory

Technical Accreditation

Technical Accreditation Guide

High-level Overview

- > Objective of technical accreditation
- > Accreditation Process overview
- > Application Accreditation Checklist
- > Connectivity Accreditation Scenarios
- > Messaging Accreditation Timeline
- > Corporate Action Timeline
- > Additional Information
 - Counterparty scenarios
 - Assisted Scenarios
 - Optional/Mandatory scenarios matrix

Technical Accreditation

Action Items

Actions to perform

- > Go through all the scenarios in detail
- > All related scenarios must be part of functional testing
- > How to execute scenarios e.g. Prerequisites, act as counterparty
- > Check the Corporate Action Requirements for scenarios
- > Provide feedback to ASX. That will help us improve the scenarios

Technical Accreditation

Next working group

- > Technical Accreditation Guide
- > Application Accreditation Checklist
- > Messaging Accreditation Time-line
- > Exemption Process

Q&A

Forward Schedule

Next steps

Review and feedback:

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

Next Software Provider Readiness Working Group meeting:

- > Date: Jan 19 2022

Forward Schedule

- > ITE1 Update
- > Registration Details update
- > Connectivity Accreditation overview
- > CHES UI demonstration
- > Member topics - TBC

Thank you.



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