



CHES Replacement Project

PISP Readiness working group

23 March 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

-
1. PISP Readiness working group objectives
 - Including roles & responsibilities and other stakeholder engagement activities
-
2. ITE2
 - Overview of ITE2 test phases and supporting documentation
 - Getting ready in advance for ITE2 opening
 - Including access forms, connectivity, onboarding and CHES user test environment considerations
 - Getting started once ITE2 is open
 - Including test data, test tools, availability and schedules
-
3. Topics for discussion at future working groups
-
4. Next steps
-

PISP Readiness Working Group

PISP Readiness Working Group

Objectives

- > Open to PISPs that interface either directly with CHESSE, including CHESSE UI users or those connecting via a bureau provider
- > Establish and manage a collaborative forum which will allow for the open discussion of activities in preparation for and throughout CHESSE user readiness including discussing specific industry considerations and to share best practices with other working group members
- > To provide clarity and certainty around significant areas to complement the documentation that has been made available and to help bring-to life key topics
- > To ensure readiness for the mandatory phases including operational readiness, industry wide testing and attestation
- > Bring together relevant individuals who have the knowledge to collectively advise and discuss fundamental elements, themes and challenges on operational matters

PISP Readiness Working Group

Roles and responsibilities

- > ASX will aim to:
 - Send calendar invitations two weeks prior to each meeting
 - Confirm an agenda one week prior
 - Circulate presentation slides in the morning prior to the meeting; and updated slides post meeting, if relevant

- > Working group members are expected to:
 - Attend, or send a delegate, to each working group meeting
 - Participate in the discussions
 - Suggest topics for future discussion
 - Respect the views of all working group members, even if they are contrary to their own opinions
 - Observe Chatham house rules i.e. do not reveal who made any particular comment outside of the working group

PISP Readiness Working Group

Other stakeholder engagement activities

- > Other CHES user readiness working groups include:
 - AMOs
 - Clearing and Settlement Participants
 - Share Registries
 - Payment Providers
- > CHES users whose organisation supports multiple CHES roles (e.g. PISP and share Registry) will receive invitations to all applicable working groups, noting there will likely be a duplication in content
- > Software providers readiness working group to continue
- > Implementation & Transition working groups to continue
- > Bilateral meetings (i.e. between ASX and CHES users) to commence on a cadence to be determined based on a customer's needs

PISP Readiness Working Group

Housekeeping

- > Please keep your microphones on mute
- > Floor open for questions either after an agenda item has been presented or where there is a natural break point
- > Please raise your hand if you have a question
- > Please switch on your cameras when talking / switch off cameras when you are not talking
- > We will endeavor to be fair in managing questions from multiple parties
- > To keep the agenda moving, some questions may need to be followed up and answered outside of the meeting
- > Presentation materials and Q&A to be published to the CHES replacement web page
- > Any feedback welcomed, good or bad

Overview of ITE2 Test Phases & Supporting Documentation

ITE2 Test Phases

> The Industry Test Environment 2 (ITE2) is a shared environment that supports CHES users in performing:

Phase	Description
CHES User Testing	<ul style="list-style-type: none">• Provides CHES users with the ability to perform internal testing using the CHES UI, on software that has been developed in-house or software developed by third party vendors• This phase will allow CHES users to become familiar with new and upgraded applications by enabling them to undertake a level of testing to provide confidence that their system is ready for the Operational Readiness Assessment phase• During user testing, CHES users are expected to update their operational procedures to align with new and changed functionality
Operational Readiness	<ul style="list-style-type: none">• CHES users will need to demonstrate that their organisation meets operational requirements by providing test evidence for all applicable operational readiness scenarios
Industry Wide Testing	<ul style="list-style-type: none">• CHES users will be able to participate in testing in a simulated, production-like environment• Testing will be coordinated industry-wide, across multiple CHES users and all roles

CHES User Readiness

Useful market documentation for reference

- > [Product Issuer Settlement Participant \(PISP\) landing page](#) Full list of resources and relevant links for PISPs
- > [Industry Test Strategy](#) Outlines the approach to the different industry test stages and test environments. Guidance on the requirements for a successful go-live
- > [ITE2 Application form & Subscriber Technical Access Agreement](#) Forms available for download from Dec'21 and can be submitted from Feb'22
- > [Connectivity Guide](#) Provide details on technical connectivity requirements
- > [User Guide for ITE2](#) User Guide to support testing in ITE2 was published in Jan'22, providing details of the testing environment, datasets and testing phases for CHES User Readiness
- > [ASX Settlement Procedures Guidelines \(APGs\)](#) Participants and registries can use these guidelines as a base for establishing internal procedures
- > [Operational Readiness Guide](#) First tranche of operational readiness scenarios published in Jan'22. Further scenarios in Feb & Mar '22
- > [Failover and Recovery Guide](#) Provide details on expected behaviors for failover and recovery
- > [Cutover & Migration Strategy](#) Provides software providers and CHES users with the scope and approach for the migration of CHES to the CHES replacement system including the associated Market Dress Rehearsals (MDRs)
- > [ASX Operating Rules](#) CHES Replacement Tranche 3 Operating Rule Amendments, together with the combined package of rule amendments across the three tranches were issued Aug'21

Getting ready for ITE2

ITE2 Readiness

ITE2 Application Form

For access to the ITE2 environment all CHES Users will be required to submit an [Application Form](#) to ASX, as presented in the I&T WG in December 2021.

This form will include:

- > Legal entity organisation
- > Organisation role to be played in ITE2
- > Network connectivity options
- > Application access options
- > Additional security contact details.

[Instructions for completing ITE2 application forms](#) is available on our documentation portal.



ASX Clearing and Settlement Platform (CSP)

Industry Test Environment (ITE2) Application Form

February 2022 | Version 1.2

Under this Application Form a Subscriber may request access to the ITE2 Technical Environment. ASX request Subscribers to complete and submit a separate ITE2 Application Form and Subscriber Technical Access (STA) Agreement for each legal entity role. The entity specified in this ITE2 Application Form and the STA must match the Subscriber's current (CHES production) entity name. ITE2 is open to all existing (CHES production) Subscribers.

All fields require completion before returning. For instructions on how to complete please see [here](#). Please complete and return this form to CHESReplacement@asx.com.au. Please include in the subject line 'ITE2 Application Form'.

Subscriber	ASKO
Name	ASX Operations Pty Ltd
ABN/ACN #	42 004 523 782
Address	20 Bridge Street NSW 2000

Please provide additional details to help us configure the ITE2 environment to your requirements

Supply the UIC to be used for testing in ITE2.

UIC identifier

Subscribers with more than one UIC please complete Appendix A.

Please indicate if your organisation wishes to use BIC rather than UIC for [party identification](#).

BIC identifier

Further details can be found in the [guidance notes](#).

Participants (excluding PISPs) to provide a BIC code, this code will be used by participants who are using the BIC party identification preference to identify their organisation. Subscribers with multiple BIC complete Appendix A.

ITE2 subscriber/role types will be created to reflect the entity's status and role in the 'to-be' Production environment. Please select **one** from the roles below.

Participant

AMO

Payment Provider

Issuer Registry

PISP

System Name / Supplier (proprietary or third party):
If third party please provide system name, provider name

Non-Australian registered companies please specify country and country identifier

ITE2 Readiness

Subscriber Technical Access Agreement

For those who will be new to the ITE process (previously not in CDE nor ITE1) you will also submit an additional [Subscriber Technical Access Agreement](#).

The form includes:

- > Legal entity and an authorised signatory of the organisation connecting to ITE2
- > Terms and conditions such as:
 - > Definitions and interpretation
 - > Commencement and duration
 - > Access to technical environments
 - > Use of the technical environment
 - > End users
 - > Availability of technical environment
 - > ASX support

Clearing and Settlement Platform - Subscriber Technical Access Agreement



Date

Parties

1. **ASX Operations Pty Limited** ACN 004 523 782 of Exchange Centre, 20 Bridge Street, Sydney NSW 2000 (**ASXO**)
2. _____ ACN _____ of _____
(Subscriber)

Background

1. ASXO operates various software and browser interface Technical Environments. The purpose of the Technical Environments is to assist ASXO with the development and testing of software and browser interfaces in connection with the development of the Clearing and Settlement Platform.
2. The Subscriber wishes to be granted access to the Technical Environments. The Subscriber acknowledges that the Technical Environments will be made available to the Subscriber on an "as-is, where-is" basis and are subject to updates and other changes from time to time.
3. ASXO will grant the Subscriber access to the relevant Technical Environments, and the Subscriber will access the Technical Environments, on the terms and conditions of this Agreement.

Agreed terms

ASXO grants the Subscriber access to the relevant Technical Environments, and the Subscriber will access the Technical Environments, in accordance with the attached Terms and Conditions.

Executed as an agreement

Signed for and on behalf of the
Subscriber:

Signature: _____

Print name: _____

Date: _____

Position: _____

Signed for and on behalf of **ASX
Operations Pty Limited ACN 004
523 782:**

Signature: _____

Print name: _____

Date: _____

Position: _____

ITE2 Readiness

Technical connectivity testing

- > Technical connectivity testing can commence following receipt of an ITE2 application form
- > CHES users must use the ASX supplied access details and avoid connecting to the environment until ASX confirms access
- > Technical connectivity testing includes:
 - Customer side configuration and enablement of all network equipment for access to the ITE2 environment (firewall permissioning, etc.)
 - Customers will be able to verify network connectivity by performing a telnet to the designated IP address and port.
 - ITE2 network details are available within section 4 of the [Connectivity Guide](#)
- > As always, for support on connectivity testing please reach out to cts@asx.com.au or your ASX Technical Account Manager (TAM)

ITE2 Readiness

Onboarding

- > Onboarding can commence after technical connectivity testing has been completed at the network level
- > The CHES users onboarding process of ~80+ organisations, will be staggered from April
- > As part of ITE2 on-boarding, depending on the CHES user's access channel preference, customers will be required to:
 - Manage Certificates via CSAM portal:
 - Setup Enterprise Administrator and staff accounts
 - Create service accounts and certificates (differ according to each access channel)
 - Install certificates
 - CHES UI: Setup Enterprise Administrator and other user accounts
- > In addition, CHES users are also advised to familiarise themselves with ITE2 resources such as - [ITE2 Networking Details](#) , [ITE2 Test tooling](#) etc.

ITE2 Readiness

Network Requirements

ASX Net or IPSEC VPN Connectivity

- > CHES users will be required to connect to ITE2 using their target production connectivity method – ASX Net or Internet (IPSEC) VPN
- > If **ASX Net**, start planning early if network changes are required to enable connectivity to ITE2. This process can take several weeks depending on planned connection method, current ASX Net product, and each organisation's network complexity and change processes, including any design approvals and potential firewall changes
 - CHES users with existing connections to CDE or ITE1 - less change is likely required on the customer end e.g. additional IPs in ITE2 and associated firewall rules/routing
 - CHES users without existing connections to CDE or ITE1 - more change is likely required on the customer end e.g. new physical network connection + new IP range required for firewall rules/routing
- > Customers who connect to the CHES replacement system for the first time via **Internet VPN** must configure a site-to-site VPN

Getting started in ITE2

ITE2 Readiness

CHES user test environment considerations

CHES user test environments

- > You will need a new test environment to connect to CHES Replacement – ITE2
- > ASX recommends CHES users keep their existing CHES BAU test environment intact and establish a new test environment for ITE2
- > Environment configuration covered later in the deck (for example UICs and security codes)
- > Primarily focused for functional testing although for those who may require it, there will be opportunities to test the performance of your interface, therefore you will need to provide considerations for the size and scale of your environment specifications
- > Will open with all of the code base required by a PISP in order to assist in their testing and operational readiness preparation
- > ITE2 will be a long running environment however occasional resets may be required

ITE2 Readiness

Overview of test data

- > ITE2 is a new environment specific to CHES replacement with new test datasets
- > One dataset has been designed to support all three phases:
 - CHES user testing
 - Operational readiness testing
 - Industry wide testing
- > CHES users will be provided production UICs
- > Security codes will be a copy of production data taken from a specific as-at date
 - subsets of securities (funds) will be identified to support testing needs across all testing phases
- > No production transactional data will be provided
- > Market events will be scheduled to run throughout the environment

ITE2 Readiness

Test Data

Data	Source	Ongoing maintenance
UICs (production)	CHES users should configure ITE2 based on their production UICs	any production changes applied after the data cut-off date will not be applied by default
Accounts	<p>No production accounts will be provided. All accounts must be created by the CHES User.</p> <p>CHES users will be able to create accounts with test tools:</p> <ul style="list-style-type: none">• Account Management Self-Service Tool; or• CHES UI	CHES Users have control over the accounts created
Holdings	<p>Holdings must be created by the CHES User</p> <p>PISP's can use the PISP (Application) self service tool to hydrate holdings, alternatively holdings may be hydrated using a holding adjustment</p>	CHES Users have control over the holdings created

ITE2 Readiness

Test Data

Data	Source	Ongoing maintenance
Securities/Funds (copy of production data)	<p>ASX has taken a copy of production security codes as at 17 January 2022</p> <p>CHES users have various options to migrate or download securities into their own test environments.</p> <p>Option 1 Migrate a copy from own prod-copy environment, with the following option: a) from date 17 Jan – align to ASX b) alternative date prior to ITE2 open – noting there will be a delta</p> <p>Option 2 Download from CSV file from ASX website</p> <p>Option 3 Download from ReferencePoint Security Master List (E01 file)</p> <p>Option 4 Stream securities directly from the ledger (ledger API clients)</p>	New securities created in production after data cut-off date will not be applied to ITE2

ITE2 Readiness

Test Data

Data	Source	Ongoing maintenance
Securities/Funds (continued)	<ul style="list-style-type: none">• In the initial phases of ITE-2 testing, ASX is proposing 3 “buckets of securities” to be assigned from each PISP’s own list of funds, as follows:<ul style="list-style-type: none">◦ A small subset to be assigned to an ASX Registry responder, to allow for isolated Participant testing◦ A subset to be assigned to each PISP/share registry to allow for isolated PISP/share registry testing◦ A subset of securities to be allocated for end-to-end testing (Participants to PISP/share Registry and vice versa)• If applicable the remaining securities (funds) to be marked as “not available for testing” ie: should Participants submit messages against this group of securities, no response from the registry is expected thus ASX Housekeeping will take place	New securities (funds) created in production after data cut-off date will not be applied to ITE2, this includes change of PISP/share registry

ITE2 Readiness

Test Tools



CHES UI

This application will support processing all related mFund transactions regardless of the actor type, that is, it will allow a User by use of the relevant UIC to create an application or redemption and submit the related investor data, then by switching the User type, us as a PISP will be able to respond to such messages.



Self-Service tools

Enable a user to initiate a workflow (or process step) acting as a different actor through submission of a template csv file to a self-service REST end-point. The self-service adapter validates the file and generates the respective ISO 20022 message and submits to CHES.



Auto-responder tools

In a multi-party workflow, the user is able to receive an automated response acting as the counterparty for the workflow they initiated. This enables the user to continue the workflow in the absence of a real counterparty.



Auto-injector tools

On a scheduled event, workflows are actioned based on the state of transaction data and/or canned data will be automatically loaded to CHES (DLT Version) to reflect data that would be generated by the platform in a production environment, such as daily margin settlement advice.

ITE2 readiness

Availability and schedules

> Daily environment schedule:

- ITE2 operates on business days for all connectivity and messaging services, with the exception of required maintenance.
- The ITE2 schedule of system events, including batch settlement, will run according to the schedule detailed in [Section 3.2 Test Environment Availability and System Event Times](#) of the Guide to Testing Services.

> Exception handling events:

- batch settlement cut-off extension;
- default management / back-out algorithm;
- batch settlement cancellation; and
- broadcast notifications.

> Support and operating Hours:

- Support Hours: 9am - 5pm (Industry Test Environment support contact details are available at [Support for ITE.](#))
- Operating Hours: 7am - 7pm (these times may be subject to change)

Topics for discussion at future working groups

Next steps

Review and feedback:

- > Slides and Q&A will be published on the CHES Replacement webpage
- > Provide feedback or additional questions by contacting CHESReplacement@asx.com.au – use “PISP – WG” as the subject heading by 6 April 2022

Next PISP Readiness meeting:

- > **Target date:** TBC

Thank you.



Disclaimer

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