



CHES Replacement Project

**Implementation & Transition
Webinar**

27 October 2021

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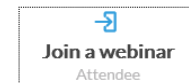


- ✔ OS - Windows 8.1
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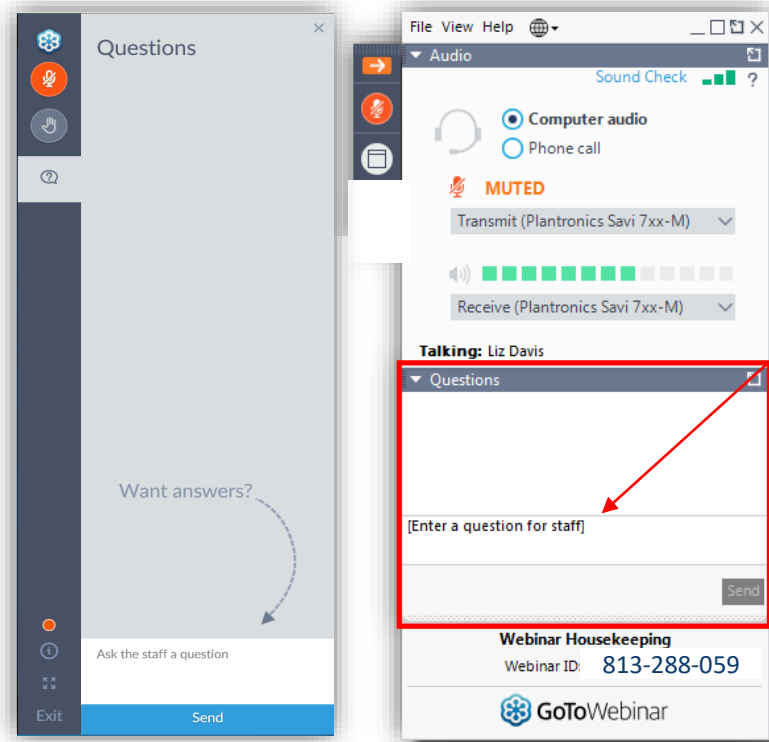
Test your system again

View System Requirements

Next steps



Housekeeping: how to submit questions



Your Participation

- To submit your text questions and comments use the Questions panel
- Note that your questions will not be seen by other attendees

For more information - refer to the webinar tips published on the [ASX CHES Replacement web page](#)

Agenda

-
- Project update

 - Focus Group Objectives

 - Recap on the approach to cutover and migration

 - Q&A

 - Next steps

Presenters and introductions

-
- **Keith Purdie - Senior Manager, Equity Post Trade**
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- **Jason Genford - Cutover Lead, Delivery**
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- **Reza Karim – E2E Migration Lead, Delivery**
-
- **Lisa Briggs - Senior Manager, Equity Post Trade**
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Project Update

Project update

October 2021

Recent activities and events

- > CDE10, last drop of functional code, released on 27 September and FAQs updated on the documentation portal
- > Software providers connectivity to ITE1 has commenced; next steps include security on-boarding in November
- > Software provider readiness working group on 13 October included an introduction to the certificate portal, ledger API updates and Q&A on netting and settlement changes
- > Questionnaire issued to share registries to gauge technical and operational readiness, inc. support for end to end testing
- > New documentation published including (i) Guide to Testing Services for ITE1; and (ii) Failover and Recovery Guide for ITE1
- > New landing page on the documentation portal for AMOs to simplify navigation

Upcoming activities and events

- > mFund operational roundtable scheduled for 28 October to include a CHES replacement update and CHES UI demo
- > Series of focus group meetings scheduled for early November on key aspects for cutover and migration
- > Documentation to be published 29 October to include certificate on-boarding details, new landing pages for PISPs and payment providers and further details on ITE1 test tools

Focus Groups on Cutover & Migration

Focus Groups

- > ASX is targeting to publish the approach to Cutover & Migration by end of this year
- > In advance of this publication, ASX has scheduled a series of focus group meetings (optional) in early November 2021 to step through some key concepts relating to the market dress rehearsals in order to discuss clarifications or challenges you may face and to help understand what additional information you need to help you prepare for MDR events.
 - Separate calendar invitation have been issued; please email CHESReplacement@asx.com.au if you did not receive an invitation and would like to attend.
- > These focus groups aim to:
 - Provide clarity on key cutover and migration activities such as market dress rehearsal activity, rollback expectations, migration approach.
 - Bring together stakeholders who have the knowledge around their respective cutover plan if defined, and to provide feedback or request further information around specific topics.
 - Allow for an open discussion on specific MDR considerations such as challenges with the weekend timeline, MDR date cut and what environment CHES Users will use to conduct MDR.
 - Provide a forum to allow stakeholders to raise any potential issues or concerns with the proposed plans

Focus Groups

- > These focus groups aim to (cont.):
 - Understand what additional information ASX can provide stakeholders to assist with their planning and preparation for market dress rehearsals.
- > The focus groups are intended to be conversational and we ask focus attendees come prepared to discuss the approach for cutover and migration

Focus Groups

Summary of questions for discussion

High level timing for the cutover weekend

1. Are there concerns with preparing for the MDR, or activities related to Friday PM?
2. Does the Saturday window allocated to CHESSE Users to perform their relevant upgrade and conversion activity present any challenge?
3. Sunday is reserved for connectivity and simple verification checks only. What other activity were CHESSE Users expecting to perform over Sunday that requires additional time?

Snapshot of data to support Market Dress Rehearsals

1. What challenges exist when considering each Data Cut option?

Environments and production data considerations

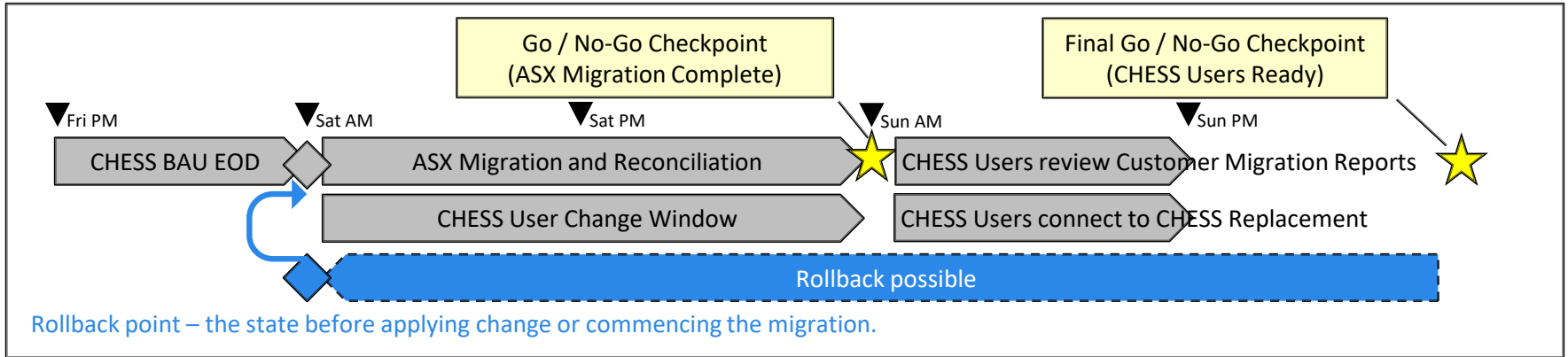
1. What CHESSE User environment is planned to be used to connect into MDRs? How does this align to what is planned for Go Live?
2. Are there concerns with using Production Data for MDRs?

Timeline

1. What further information will help plan for MDR events that ASX could provide prior to July 2022?

High Level Cutover timeline

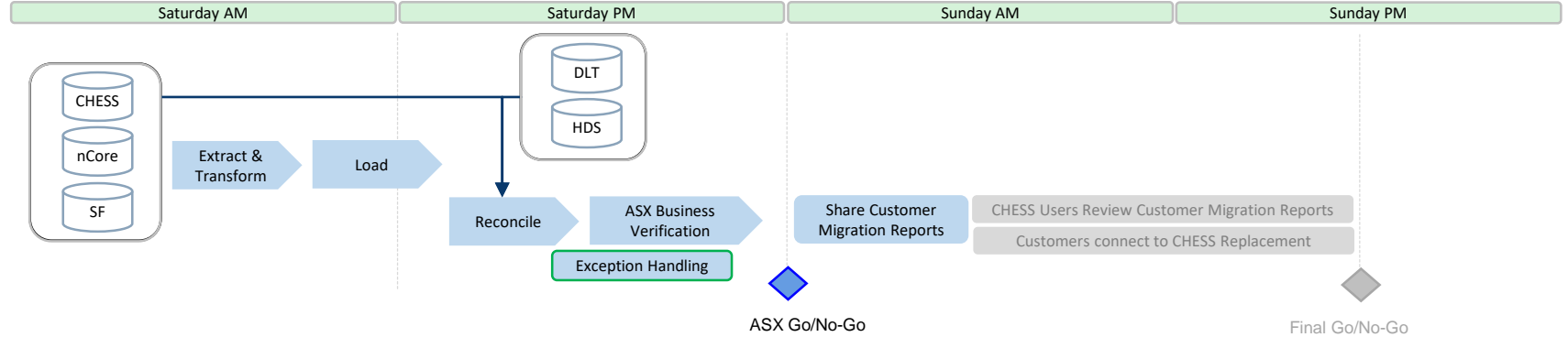
- > Topics covered in this presentation includes both the migration approach and cutover readiness. The following cutover weekend timeline will be referenced throughout



Migration approach

Key ASX Migration Activities

Migration activities over the cutover weekend



- > ASX will perform data migration from current source systems in to CHES replacement
- > Migration entails extraction & transformation of data from source systems and loading in to target system
- > ASX Reconciliation will be performed to validate the accuracy and completeness of data migration
- > Any exceptions identified will be managed on the weekend, and reconciled and communicated via customer reports
- > ASX Business verification and sign off for data migration will provide input in to an ASX 'Go/No-Go' decision
- > Customer reports will be shared once migration activities are completed

Scope of Data Migration

- > The entire scope of data migration for the CHESSE replacement project can be grouped in to 2 categories:
 - Datasets that will be migrated by ASX without impact to CHESSE users (such as CHESSE UICs, payment facilities, issuers, securities, relationships, announced inflight corporate actions, holdings etc.)
 - Datasets that will be migrated by ASX but may require CHESSE user actions. They are:
 - Accounts and holder details
 - Inflight instructions (transactions)

Migration Over the Cutover Weekend

ASX Actions

- > ASX will migrate all active data from CHES to CHES replacement, including UICs, accounts (HINs), holdings (including sub-positions) and open scheduled settlement instructions
- > Accounts
 - Accounts retain the same HIN number
 - A holder ID (internal system identifier) will be assigned to each holder within a HIN (required for future updates to Holder)
 - CHES 180 registration details will be mapped to ISO 20022 format
- > Open scheduled settlement instructions
 - All scheduled settlement instructions will be migrated including net broker obligations, market trades, client side unilateral and bilateral scheduled instructions
 - Scheduled settlement transaction identifiers will be updated **noting** existing current CHES transaction ID will form part of the new obligation ID where required

Inflight Transactions

Inflight Transactions

What do we mean by inflight transactions?

- > Any transaction in CHESS where subsequent activity for business events may occur e.g. settlement of net broker obligations (NBOs), dual entry settlement notification and un-actioned issuer to CHESS transfer requests

Objective

To maintain market integrity and continuity of service by:

- > ensuring inflight settlement instructions scheduled for batch settlement after the cut-over weekend can be seamlessly completed (e.g. settled), in the replacement system when expected;
- > actioning all other inflight transactions by completion of workflow including housekeeping and/or cancellation

Guiding Principles for Inflight Transactions

Guiding principles to reduce complexity & minimise risk for both the market & ASX

- > Reduce weekend migration risk by minimising in-flight transactions, where possible, for cut-over e.g. cancel specific transaction types and resubmit for processing in the new system
- > Lower complexity and risk by reducing the need to synchronise and reconcile inflight transactions
- > Prove, test and if necessary, refine the approach to managing inflight transactions through a series of testing and dress rehearsals

CHES user activities

CHES user activities

Controlling participants actions

> Accounts

- Replicate and apply holder IDs to existing accounts for subsequent account updates
- Must create new or amend existing accounts in ISO 20022 format
- Optionally reflect new format of account registration details in host systems (using ASX Registration Details Tool)

> Open (inflight) scheduled settlement instructions

- Update the transaction ID

Share & unit (mFund) registries actions

- > Must be able to receive any new or amended account information in ISO 20022 format
- > Optionally reflect new format of account registration details in host systems (using ASX Registration Details Tool)

What activities can be done in advance for Accounts & Holders?

Data Remediation

- > Data remediation refers to the enrichment and or cleansing of data to be fit for purpose to meet system, business, regulatory and operational requirements
- > Controlling participants remove dormant accounts, correct invalid country codes and remove references to invalid terms in account designation

How will ASX support CHESS users?

- > Earlier this year, ASX has provided the registration tool to assist with the conversion of current account registration details to the new account registration details (using the same formula as ASX)
- > Since May this year, ASX is also working with controlling participants, who have had exceptions identified for HIN data, to plan the remediation steps for cleansing any exceptions

Data Remediation – clean up current CHES registration details

HIN Registration Details

- > Details in current CHES must align with ISO 20022 messaging standards & business rules in CHES replacement
- > Exceptions have been identified for HIN registrations that do not comply
- > Remediation of the relevant fields and formats is needed to ensure a successful migration

Examples of
exceptions

Holder name is longer than 80 characters

Address Line 1 missing registration details

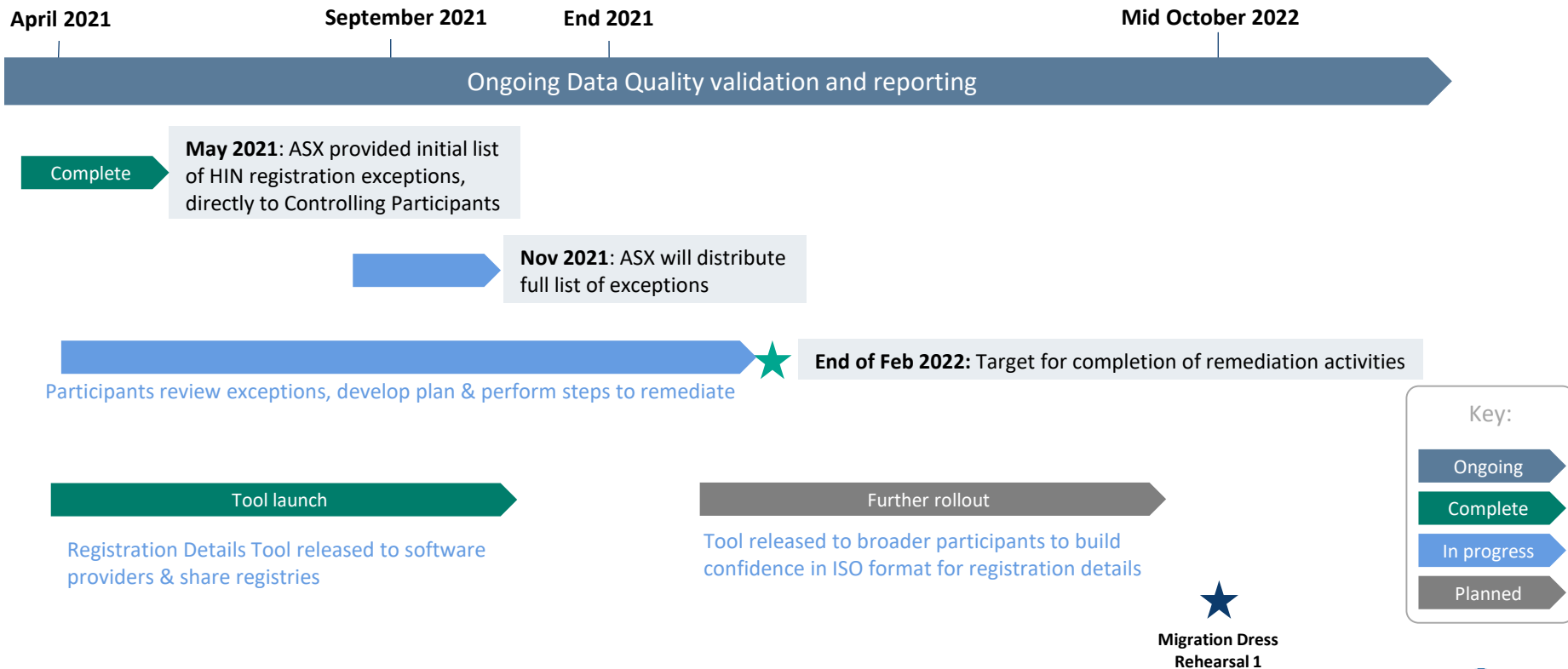
Invalid Country Code

- > ASX have compiled a list of exceptions which can be viewed here:
<https://asxchessreplacement.atlassian.net/wiki/spaces/CSP/pages/856719933/Exceptions+Warnings+and+Errors#Exceptions-Identified-by-the-Tool>

Communicating exceptions

- > Direct contact has been made with all Participants who has HIN registration exceptions
- > ASX has been sharing reported exceptions and remediation required in CHES production
- > ASX provided steps to remediate known exceptions and address potential for future exceptions

Data Remediation – Timeline



Possible Actions for Inflight Transactions

CHES user-triggered activity

Participant can cancel a transaction via current message workflows prior to the commencement of EOD processing on Friday
Share registry will be required to accept or reject participant initiated requests e.g. transfers or conversions from issuer sponsored to CHES

ASX operations activity

ASX operations to accept/reject (e.g. registration details update request relating to holder name changes)

CHES housekeeping

Automatic cancellation (e.g. cancellation of dual entry demand transfer request) by ASX prior to commencement of EOD processing on Friday

Data migration

Settlement instructions to be migrated from CHES to the replacement system

Detailed information on Inflight Transactions were published before on our portal. Please refer to the following link:

<https://asxchessreplacement.atlassian.net/wiki/spaces/CSP/pages/766804293/Cutover+and+Migration+-+Inflight+Transactions>

ASX also covered this topic on Inflight Transactions in previous webinars

- January 2020 - <https://www2.asx.com.au/content/dam/asx/participants/clearing-and-settlement/chess-replacement/implementation-and-transition-webinar/implementation-transition-webinar-20200129.pdf>
- August 2020 - <https://www2.asx.com.au/content/dam/asx/participants/clearing-and-settlement/chess-replacement/implementation-and-transition-webinar/implementation-transition-webinar-20200826.pdf>

Exception Handling during Cutover weekend

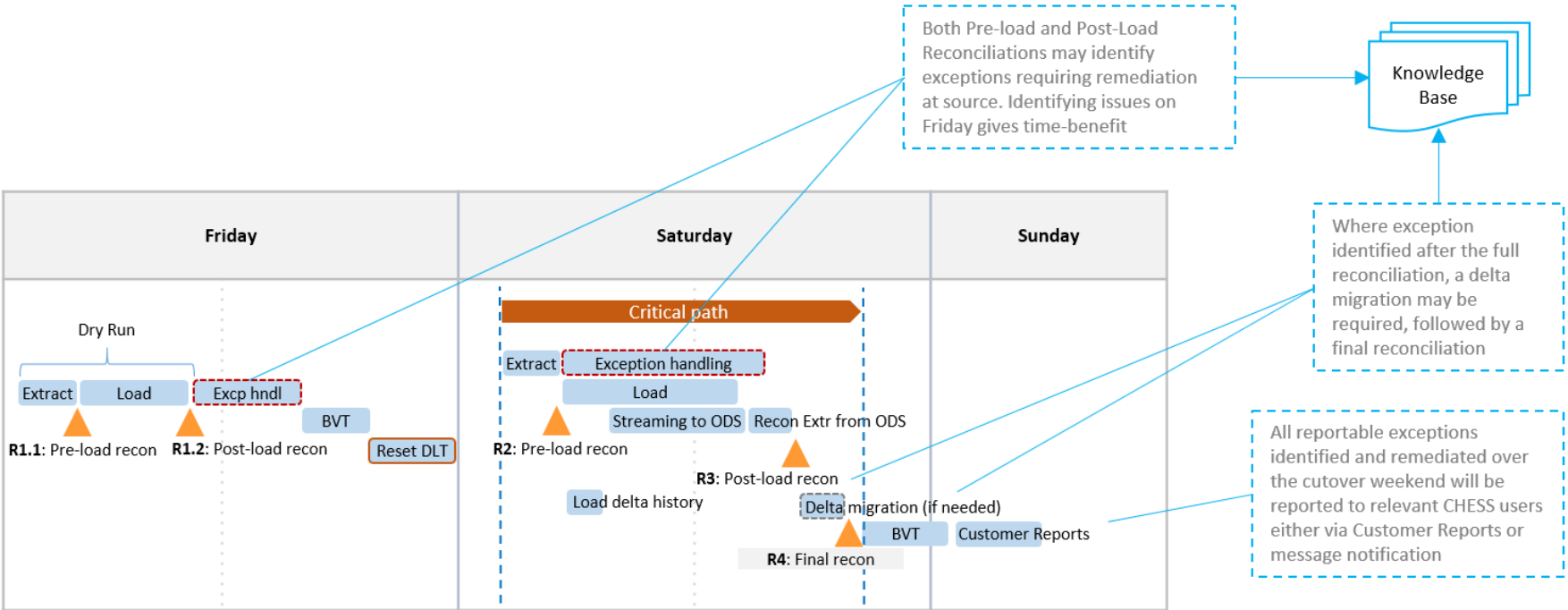
Managing Exceptions During Cutover

What happens if there is an exception?

- > Where non-compliant account doesn't have holdings or settlement obligations, it may not be migrated. The controlling participant will be advised so that it can create the account post go-live if required
- > Where non-compliant account has holdings and/or settlement obligations, it will be remediated by ASX. The sponsoring participant and issuers (registries) will be advised of the change, so that they can apply the change to the records in their back-office system
- > The dress rehearsals prior to the cutover will provide the opportunity to rehearse the exception handling process

How will exceptions be handled?

- > In the event of exceptions identified over the cutover weekend, ASX will leverage the knowledge base to ensure time is spent effectively to resolve issues on the critical path by fast-tracking analysis activities
- > Data validation run on Friday will provide early indication of exceptions to manage ahead of Saturday migration



Customer Migration Reports

Customer Migration Reports

Purpose

- > To communicate outcomes of ASX's data migration and provide CHESSE Users post-migration positions of data relevant to them

Characteristics

- > Post-migration position; i.e., the reports do not provide a comparison of pre and post migration positions
- > Aggregated summary level for some (Account and Holdings reports) and
- > Detailed level for others (e.g. mFunds Open orders)
- > Specifies data remediation performed over the cutover weekend for controlling participants and registries only

How will this be done?

- > Reports will provide aggregate Summary information, except where detailed listing is required
- > Customer reports will be broken down by participant types (issuers/registries, AMOs, C&S participants etc.) and each recipient will only receive information relevant to them
- > In the event, account exceptions are found on the weekend, ASX will remediate and capture the details in specific reports that controlling participants and issuers (registries) may need to update in their systems
- > ASX is considering sharing these reports earlier than MDRs to help CHESSE Users firm up relevant activities

Scope of the reports

Report Recipients	Report level	Content	Source of data
Issuers / Registries	Summary	Listing of all Issuers and Securities managed by a Registry with the breakdown per Security that will include count of Holding, Holding Balance totals and Cum Entitlements per active Corporate Action	CHESS DLT
Issuers / Registries	Detailed	Remediated accounts report including remediated registration details, change to communication preferences and removal of email addresses and accounts not migrated (only if there are valid holdings)	CHESS DLT Current CHESS
AMOs	Detailed	Report will contain similar information as Security Details Report (daily report from CHESS DLT) relevant to the AMOs	CHESS DLT
Settlement Participants and C&S Participants	Detailed	Listing of Settlement Instructions being migrated with mapping between original Transaction ID and new Obligation ID	Current CHESS CHESS DLT
Controlling Participants (Requesting & Controlling Participants)	Summary	Summary information of Accounts sponsored by a participant with the breakdown per type and status and another Holding sub-position report broken down by security	CHESS DLT
Controlling Participants	Detailed	Listing of pending Change of Controlling Participant Requests that will be provided to both, Controlling and Requesting Participants	CHESS DLT

Scope of the reports

Report Recipients	Report level	Content	Source of data
Bid Offerors	Summary	Summary information of holding acceptances by bidder for relevant CA (e.g.; take over, buy back or reinvestments)	CHES DLT
Bid Offerors	Detailed	Detailed report where the Bidder has not accepted/rejected a sponsoring participant's Takeover Acceptance Removal Request by COB on the Friday	Current CHES
PISP & mFund Brokers	Detailed	Outstanding mFund orders exception report. In case there are open orders on the cutover weekend, a report will be provided for mFund Brokers and the relevant PISPs	Current CHES
CHES Users	Detailed	CHES Users will be provided with report detailing their Message Preference including relevant Entity Names, UICs, BICs (if applicable) and Message Preference	CHES DLT
Payment Providers	No customer report in scope		

Cutover and Market Dress Rehearsals

Rehearsal objectives

Cutover Rehearsals will ensure all required activities to successfully cutover to the target state can be completed within the required timeframe over a single weekend. To minimise the risks, the cutover Go Live will be preceded by **three phases of Dress Rehearsals**; (i) ASX Technical Dress Rehearsals, (ii) ASX Operational Dress Rehearsals; and (iii) Market Dress Rehearsals.

The objectives for cutover dress rehearsals is to allow ASX and all CHES users to:

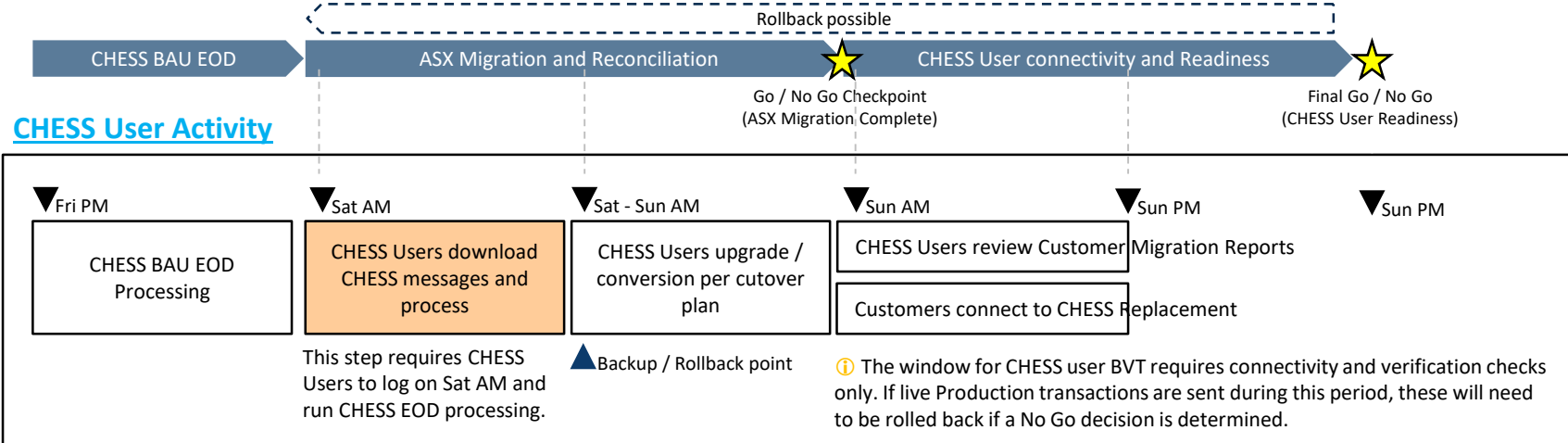
- > Prove, test and refine the cutover approach
- > Confirm the sequence of activities are correct
- > Allow for adjustments to be made to the run sheet, as necessary, to ensure all activities can be completed within the actual migration window
- > Test the communication channels with the ASX command room
- > Test cutover incident management procedures
- > Ensure success criteria is clear and outcomes achieved

* as applicable

High Level Cutover Weekend Timing

The Cutover weekend, and all MDRs, will commence once Friday processing of current CHES BAU is complete for Friday EOD.

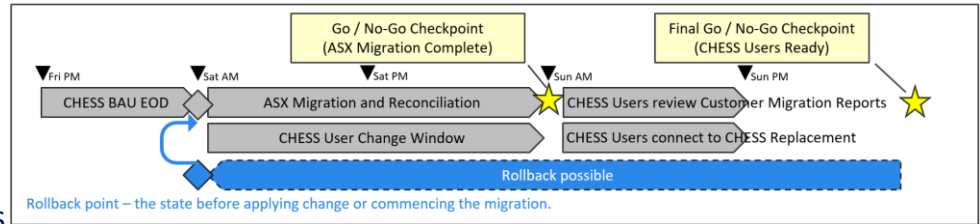
- > **Saturday** will be reserved for ASX to migrate to CHES Replacement, while CHES Users will complete all necessary upgrades and conversions.
- > **Sunday** will aim to prove connectivity including simple verification checks. The final Go / No Go, indicatively scheduled for Sunday PM, will seek readiness confirmation from each CHES User.
- > **Rollback** - ASX will execute the ASX rollback plan as part of selected rehearsal events. Execution of CHES user rollback plans will be requested as part of selected MDR events.



CHES User Input in to Go / No-Go checkpoints

Go/No-Go checkpoints:

- > Go / No-Go Checkpoint: Confirm sign off for the Migration and assess readiness to enable the market to connect to CHES DLT for verification purposes and to share the Customer Migration Reports
- > Final Go/No-Go: will confirm both ASX and the market is ready to go-live



Checkpoints

Market's inputs

ASX Migration Complete

- Status check that CHES users have downloaded all messages at the back of Friday night's batch
- Status check that all CHES Users system upgrades and/or conversions are completed

Final checkpoint

- Customer to confirm that they can connect to CHES DLT and perform any necessary verification checks
- Review Customer Migration Reports and confirm no major mismatches preventing business as usual from Monday

Focus Group Questions - High Level Cutover Weekend Timing

- Are there concerns with preparing for the MDR, or activities related to Friday PM?
- Does the Saturday window allocated to CHES Users to perform their relevant upgrade and conversion activity present any challenge?
- Sunday is reserved for connectivity and simple verification checks only. What other activity were CHES Users expecting to perform over Sunday that requires additional time?

Current vs prior data date cut considerations

Market Dress rehearsals will use a Production data cut. CHESSE Users will be required to consider Go Live preparation tasks when securing the snapshot targeting an MDR.

There are two options in relating to the date of the MDR data cut.

Prior Date Example – MDR data cut is 2 weeks prior to MDR date	Current Date Example – MDR data cut is the date of the MDR
<ul style="list-style-type: none">▪ Allows organisations to prepare MDR snapshots in advance. Backup and snapshot timing significant for some organisations.▪ CHESSE users will be required to perform the Go Live step of downloading and processing Friday messages on Saturday AM as part of securing the prior date rehearsal backup.	<ul style="list-style-type: none">▪ Best aligned to Go Live plan, requiring ASX and CHESSE Users to conduct all Go Live activity on the MDR weekend▪ Will require organisations to backup and restore Production to the MDR environment prior to conducting MDR activity. This may be an additional step not required for Go Live.

Focus Group Question - Current vs prior data date cut

- What challenges exist when considering each Data Cut option?

Environments and using Production data

Rehearsal environment discussion points

- > ASX will be using the 'to be' Production environment for all Market Dress Rehearsals, including unmasked Production data. All relevant Production controls will be in place.
- > The ASX to be Production environment will be available following each MDR for a period of time for further validation.
- > It is expected that CHES Users will use either a 'to be' Production environment or current Production environment.
- > The table below lists a sample of rehearsal considerations, noting discussion points depending on what environment CHES Users plan to use as part of MDR participation.

Rehearsal Consideration	'To be' Production environment (new Prod environment)	Current Production environment (existing Prod environment)	Production Like environment (Non Prod environment)
Mimic Go Live plan on Go Live target environment	✓	✓	—
Prove Go Live connectivity for each rehearsal	✓	✓	—
Participate in post MDR Disaster Recovery activity (weekend)	✓	✓	—
Participate in post MDR validation activity (post weekend)	✓	—	✓

Focus Group Questions - Environments and using Production data

- What CHES User environment is planned to be used to connect into MDRs? How does this align to what is planned for Go Live?
- Are there concerns with using Production Data for MDRs

Q&A

Next steps

Next steps

Key points from today's webinar:

- > New documentation to be published Friday 29 October including: i) ITE1 security certificate onboarding details; ii) updated connectivity details for AMQP and FIX; iii) new landing pages for PISPs & payment providers
- > ITE1 on-boarding of Software Providers to commence from next month
- > Upcoming industry Focus Groups:
 - > Share Registries – 3 November 2021
 - > Software Vendors – 4 November 2021
 - > Clearing & Settlement Participants – 9 November 2021
- > Reminder: written feedback on rule amendments requested from stakeholders by 14 December 2021

Review and feedback:

- > Webinar recording, slides and Q&A will be published on the CHESSE Replacement webpage
- > Provide feedback by contacting CHESSEReplacement@asx.com.au – use “I&T webinar” as the subject heading
- > Feedback welcome by COB Wednesday, 10 November '21

Next I&T Working Group meeting:

- > Date: Wednesday, 24 November 2021

Thank you.



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