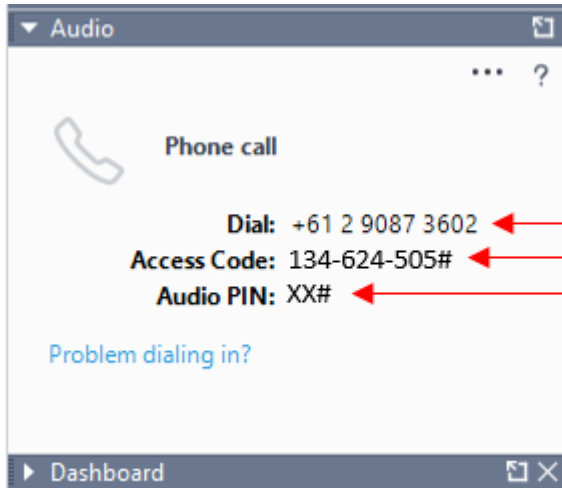


ISO 20022 Technical Committee Meeting

Tuesday 21 November 2017

Joining by webinar

Please note that ASX is using a new webinar platform (GoToWebinar) for this meeting. Details provided by email. Once you have registered and clicked on the link to join the webinar you will need to join the audio by phone, not PC. Each attendee will have a unique PIN assigned, as shown below. Please follow any instructions to check your system, PC.



Attendee Participation

Join audio:

- Choose Telephone and dial using the information provided
- You will need the unique 2 digit audio pin to ask questions.

Agenda

Agenda overview

Minutes from last meeting, open actions

CHESS Replacement project update by ASX

ISO 20022 project update by ASX

Update from Business Committee (verbal)

Matters for Consideration:

MyStandards Community – usage guideline feedback

New ISO 2022 message definitions - samples

Precision of amounts, units, prices, rates elements

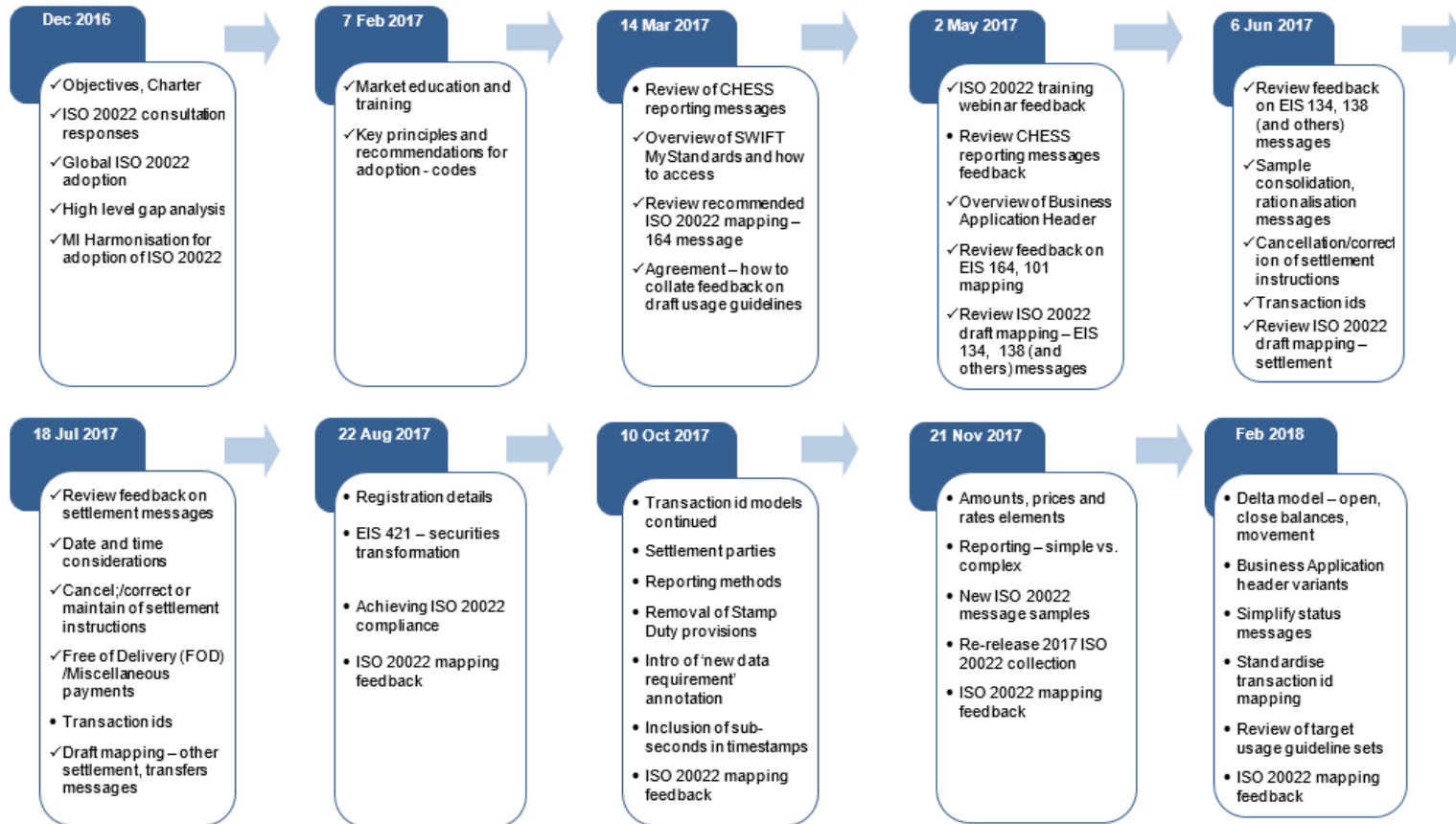
Reporting – simple vs. complex

Re-release of 2017 CHESS Replacement ISO 20022 collection

Usage guidelines for review

Next meeting

Forward agenda overview



Minutes and actions

Minutes for 10 October 2017 meeting available on [CHES Replacement web page](#), including all open, closed action items. Open action items:

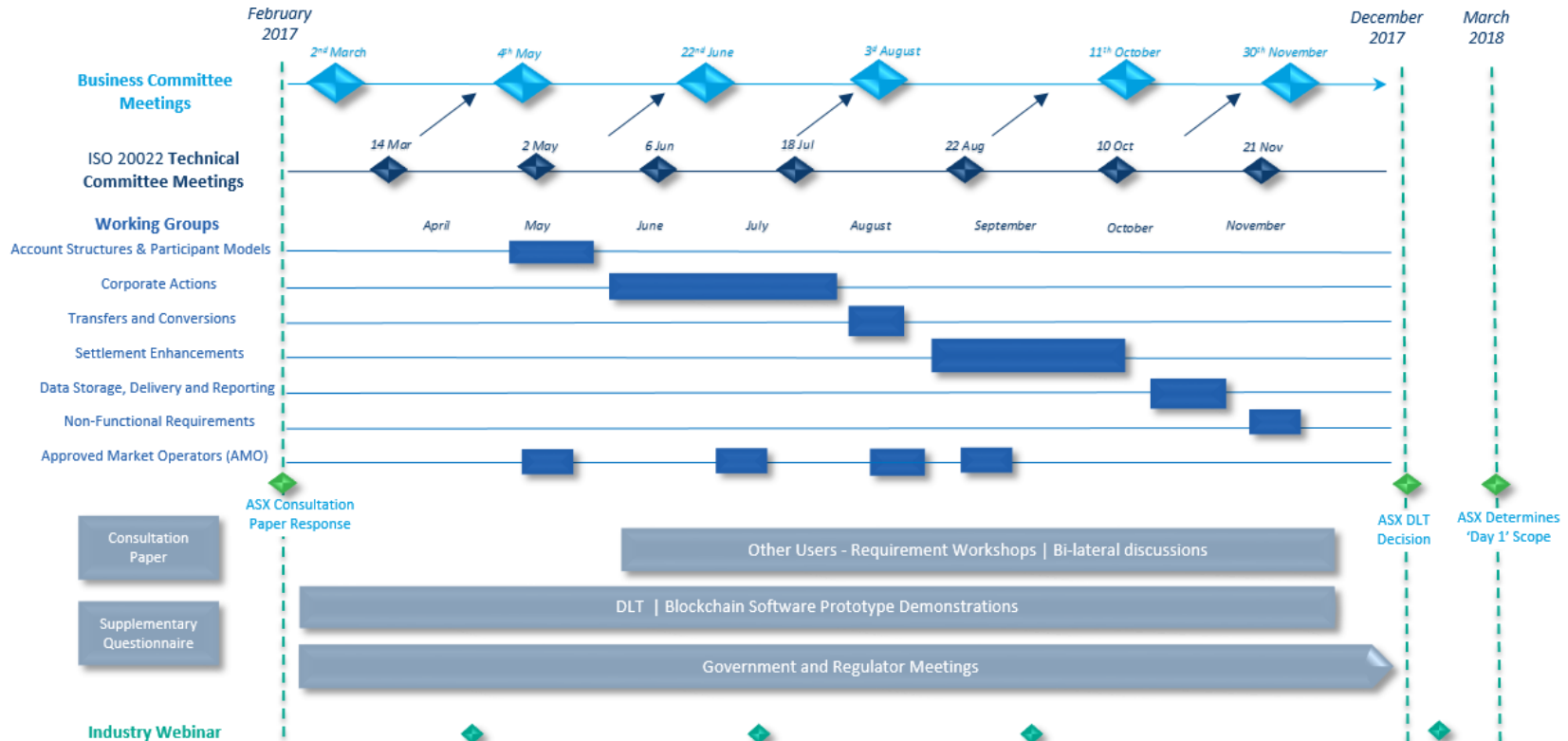
No.	Meeting Date	Open Action Items	Owner	Due Date	Status
19	2 May 2017	Provide sample of demonstration of comparison between ISO 20022 and ISO 15022 messages.	Scott Oakland, JPM	On hold	On hold
20	2 May 2017	Provide details of a proposed plan including potential topics for the remaining training webinars for feedback, including identification of business vs. technical topics.	ASX	On hold	On hold
23	2 May 2017	Further review of the ASX CHES demand reporting summary and responses to questions contained in that summary. ASX to continue review of reports and provide further candidates for descope at meetings.	Members / ASX	21 Nov 2017	On hold
39	22 Aug 2017	Chair to contact members seeking feedback on the approach of the Technical Committee, any suggestions to improve the process.	ASX	21 Nov 2017	WIP
41	22 Aug 2017	Conduct bilateral discussions with share registries and mailing houses regarding structuring of registration details and associated static data.	ASX	21 Nov 2017	WIP
42	22 Aug 2017	Conduct bilateral discussions with share registries regarding current holding balance changes associated with corporate actions and proposed withdrawal of EIS 421.	ASX	21 Nov 2017	WIP

Minutes and actions

Open action items, cont'd:

No.	Meeting Date	Open Action Items	Owner	Due Date	Status
43	10 Oct 2017	Provide a proposed governance method for Technical Committee input to and review of all matters tabled at the Standards Evaluation Group (SEG), including any matters raised by ASX on behalf of community.	ASX	21 Nov 2017	WIP
44	10 Oct 2017	ASX project team to consider effective housekeeping of rights that expire worthless – and whether this could be improved.	ASX	21 Nov 2017	Close
45	10 Oct 2017	Review recommendations put to committee in Agenda item 6c) – approach to ISO best practice exceptions and provide feedback to ASX.	Members	21 Nov 2017	
46	10 Oct 2017	Review recommendation put to committee in Agenda item 6d) – inclusion of unique event id in Market Infrastructure Tx id (MITI) field.	Members	21 Nov 2017	
47	10 Oct 2017	Allow for future use of Party2+ identification in messages, and ensure discussion on same point at working group meetings re business requirement.	ASX	21 Nov 2017	Close

CHESS Replacement Project Update



ISO 20022 project update by ASX

- SWIFT standards consultants continue detailed mapping of CHES EIS messages to ISO 20022 usage guidelines – drops every 2 weeks, about 30 messages in each drop
- ASX review of high priority draft usage guidelines continues, with preparation for Technical Committee review.
- SWIFT mapping progress for **2nd half of 2017 tranches** @ mid November 2017 – scope on as-is basis:

CHES business area	# of EIS messages	CHES business area	# of EIS messages
Clearing & Settlement	30	mFund Service	85
Collateral Management	66	Reporting	35
Takeover	22	RTGS Settlement	33
Holder Management	22	Miscellaneous	39
Holding Movement	14	DELIVERED/TOTAL	307/346

Update from Business Committee

Matters for consideration

MyStandards community – usage guideline feedback

Guidelines with less structured XML base messages

Hint: Excel won't resize cell

To display all annotations

e.g BP33 in EIS425.

→ To view, click in cell and view in formula bar

Technical committee comments since Oct10:

- Comments on 7 of 13 guidelines by 5 members (1 Custodian, 1 Registry, 3 Vendors)
- Comments on Demand Unilateral Transfer, CHES to Issuer-sponsored Transfer, Registration Details, Holding Adjustment.
- No comments on Payment Facility Admin.
- 19 comments including 7 'no issues' with Demand Transfer.

Usage Guidelines available from Oct10

EIS 001	EIS 007	EIS 201	EIS 425
EIS 002	EIS 008	EIS 202	EIS 422
EIS 240	EIS 418		
Common Definitions			
EIS082	EIS022	EIS 512	

Themes: Less structured schemas

- Concatenated Fields within ISO element.
e.g. EIS418 mapping of Receiving Residency Indicator and TFN/ABN 1,2 & 3

→ Generally avoided as less XML validation as no XML pattern of valid values

1. Business rule for 'order of input' (may be hidden in larger cells so click into these)
2. Options a) Comment for Description, EIS Values and ISO Code
b) /Parameter/ to identify and delimit.

As used in EIS001/TradeDetails for BP34 and BP70
e.g. >/RRID/DOMC/TIN1/123456789089<

XML Tag	Mult	Type / Code	Restr	Additional details									
<RegnDtIs>	[0..1]	text{1,350}	[1..1]	<p>Annotation: EIS Message Field Specification - Bit Position: 175 - Field Name: Receiving Residency Indicator - Size: 1, Format: C, Cardinality: 0</p> <p>Comment: Description EIS Value ISO Code <table border="1"> <tr> <td>Domestic</td> <td> D</td> <td> DOMC</td> </tr> <tr> <td>Foreign</td> <td> F</td> <td> FORN</td> </tr> <tr> <td>Mixed</td> <td> M</td> <td> MIXD</td> </tr> </table> </p> <p>Annotation: EIS Message Field Specification - Bit Position: 100, 101 & 102 - Field Name: Tax File Number / ABN 1, 2 & 3 - Size: 12, Format: C, Cardinality: 0</p> <p>Annotation: Business Rule - Description: Order of Input: (1) 100 Tax File Number / ABN 1 (2) 101 Tax File Number / ABN 2 (3) 102 Tax File Number / ABN 3 (4) 175 Receiving Residency Indicator</p>	Domestic	D	DOMC	Foreign	F	FORN	Mixed	M	MIXD
Domestic	D	DOMC											
Foreign	F	FORN											
Mixed	M	MIXD											

Annotation: Business Rule
 - Identification: ReferenceIdentificationAndOrderRule
 - Description: Specify the party reference or the underlying reference with a qualifier, i.e. /PRTY/<Party Reference> and /UNDR/<Underlying Reference>.
 As both elements are optional, following order of elements should be applied: first Participant Reference, then Underlying Reference.

 Type Changed:
 text
 /{(PRTY|UNDR)/[S]{1,16}}

MyStandards community – usage guideline feedback

Themes and response

Themes: Less structured schemas (continued)

- Name & Value pairs for set of elements
e.g. EIS512 mapping to T2S DRAFT message reda.023

2	Requested Modification	<ReqdMod>	[1..1]	Choice
3	Market Specific Attribute	<MktSpfcAttr>	[1..1]	
4	Name	<Nm>	[1..1]	text{1,35}
4	Value	<Val>	[1..1]	text{1,350}

→ Method not typical in ISO 2022. Generally avoided as less XML validation as no XML pattern of valid values.

Note: SEG may require conversion to structured XML elements!

- Component used for both New (Insert) and Modified (UPDT)

- Business rule for 'Insert and Update' usage and populating Market Specific Attributes

1	Name	XML Tag	Mul	Type	Res	Additional details
2	Scope Indication	<Scplndct>	[1..1]	text		Annotation: Business Rule - Identification: Insert and Update Rule - Description: When the details are NEW use Insert New Data Set option with the Market Specific Attribute/Name containing the Field Name and Market Specific Attribute/Value containing the relevant data and format. When the details are UPDATED use Update Data Set Details option with the Market Specific Attribute/Name containing the Field Name and Market Specific Attribute/Value containing the relevant data and format. If this is a removal of existing information then this will be populated with NONREF.
3	Insert New Data Set			INSE		
3	Update Data Set			UPDT		

Mapping EIS fields to Market Specific Attribute <MktSpfcAttr> as pairs of Name <Nm> and Value <Val> tags.

Business rule added to Requested Modification <ReqdMod> for each mapped field, including typing and NONREF default.

Format not enforced by XML schema validation

1	Name	XML Tag	Mul	Type	Res	Additional details
2	Requested Modification	<ReqdMod>	[1..1]	Choice		Annotation: Business Rule - Identification: Requested Modification Rules - Description: For new or updated details for: - BP2 Security Code, populate Market Specific Attribute/Name with Security Code and Market Specific Attribute/Value will be typed by ISINOct2015Identifier or FinancialInstrumentText_ASX_1 - BP19 Controlling PID, populate Market Specific Attribute/Name with Controlling PID and Market Specific Attribute/Value will be typed by Exact5NumericText ... - If the occurrence is a removal of existing information then this will be populated with NONREF.

ASX will advocate for structured XML schemas at Securities SEG and aim to adopt in to-be guidelines

New ISO 20022 message definitions

Extend ISO standards to cover new common messaging areas

- Requires business justification to Registration Authority (SWIFT)
- Submitter has leadership in designing Industry requirements for that area e.g. Reference Data by T2S
- SWIFT allocate draft message Ids given name and purpose
- New messages defined using ISO 20022 elements and components
- Registration subject to approval of Standards Evaluation Group (SEG)

ASX with SWIFT have identified 3 areas to be extended that provide messaging for ~30 EIS guidelines

Business Area		CHES Process	DRAFT Msg Id	Message Name
camt	Cash Management	Funds Notification, Funds Authorisation, Funds Transfer	camt.089 camt.090 camt.091 camt.092 camt.093	Cash Obligation Report Cash Obligation Status Report Cash Settlement Initiation Request Cash Settlement Initiation Status Advice Cash Obligation Cancellation Notification
auth	Authorities	TFN/ABN Advice	auth.081 auth.082	Investor Regulatory Data Report Investor Regulatory Data Status Advice
colr	Collateral Mgt	Excess Cash Margin	colr.017 colr.018	Excess Cash Margin Instruction Excess Cash Margin Instruction Status Advice

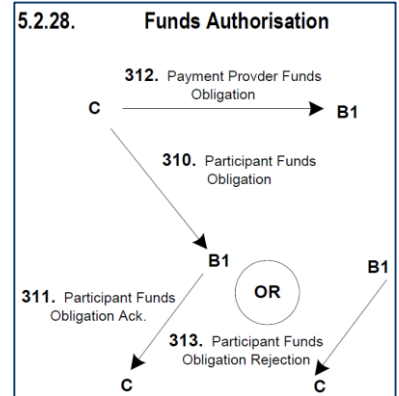
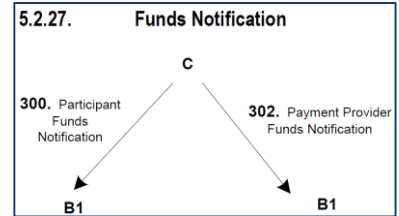
Submission to follow confirmation of Day1 scope in 2018. Not subject to 18-month SWIFT annual change cycle

Use of new draft message definitions

Guidelines based on new draft ISO base messages

CHESSE Funds Transfer using draft ISO20022 messages

- Funds Settlement not part of ISO 20022 Securities or Cash Management business areas
 - CHESSE process involves Payment Providers instructing funds transfer (using RBA's RITS) as part of DvP settlement
Aggregation of payment obligations for Participant and Payment Provider as agent.
 - EIS messaging to Payment Provider in preparation for DvP/batch settlement.
 - **Notification** (EIS300) and **Authorisation** for payment* (EIS311) of Participant's funds obligations (EIS310)
 - Aggregation for Payment Provider of net funds obligations (EIS302, EIS312)
 - **Transfer** Request (EIS332) of Approved payments adjusted by CHESSE for any non-deliveries by Participant
 - Payment Provider transfer funds in RITS from ESA (Exchange Settlement Account) and confirms (EIS333).
- * Rejection (EIS313) by Payment Provider of obliged funds is a default event by Participant e.g. BBY



ISO 20022 mapping

- Provides CHESSE-equivalent business process

Draft ISO Message	camt.089	camt.090	camt.091	camt.092	camt.093
EIS Messages	EIS300, 302, EIS310, 312	EIS311, EIS312, 313	EIS332	EIS333	EIS154 (Cancel)

Q: Are Funds Notifications (EIS300, 302) on SD-1 used by Payment Providers e.g. Liquidity management

Draft Cash Obligations and Cash Settlement messages

Modelling for DvP Cash Settlement

camt.089

Lvl	Name	XML Tag	Mult	Type / Code
0	Cash Obligation Report V01 (DRAFT1camt.089.001.01)	<CshOblgtnRpt>		
1	Pagination	<Pgntn>	[0..1]	
1	Report Header	<RptHdr>	[1..1]	
2	Report Identification	<RptId>	[0..1]	text{1,35}
2	Settlement Date	<SttlmDt>	[1..1]	Choice
3	Date	<Dt>	[1..1]	date
3	Date Time	<DTm>	[1..1]	dateTime
2	Cash Obligation Status	<CshOblgtnSts>	[1..1]	text
3	Actual			ACTL
3	Projected			PRJD
2	Market Infrastructure Transaction Identification	<MktInfrstrctrTxId>	[0..1]	text{1,35}
1	Account Servicer	<AcctSvcr>	[0..1]	
1	Settlement Agent Net Position	<SttlmAgtNetPos>	[0..1]	
2	Net Position Identification	<NetPosId>	[1..1]	text{1,35}
2	Net Cash Amount	<NetCshAmt>	[1..1]	
3	Amount	<Amt>	[1..1]	0 <= decimal td = 18 fd = 5
4	Xml Attribute Currency	<Ccy>		text AUD
3	Credit Debit Indicator	<CdtDbtInd>	[1..1]	text
4	Credit			CRDT
4	Debit			DBIT
2	Total Number Of Positions	<TtlNbOfPos>	[1..1]	1 <= decimal td = 18 fd = 0
2	Authorisation Reason	<AuthstnRsn>	[0..1]	text{1,35}
3	Failure			FAIL
3	Primary			PRIM
1	Settlement Account Net Position	<SttlmAcctNetPos>	[0..*]	
1	Supplementary Data	<SplmtryData>	[0..*]	

Reuse existing components

MITI included for Event Id

ISO not EIS codes

Supports both single and multiple

camt.090

Lvl	Name	XML Tag	Mult	Type / Code
0	Cash Obligation Status Advice V01 (DRAFT1camt.090.001.01)	<CshOblgtnStsAdv>		
1	Status Header	<StsHdr>	[1..1]	
2	Original Business Request	<OrgnlBizReq>	[1..1]	
3	Message Identification	<MsgId>	[1..1]	text{1,35}
3	Message Name Identification	<MsgNmId>	[0..1]	text{1,35}
3	Creation Date Time	<CreDtTm>	[0..1]	dateTime
2	Market Infrastructure Transaction Identification	<MktInfrstrctrTxId>	[0..1]	text{1,35}
2	Net Position Status	<NetPosSts>	[1..*]	
2	Net Position Identification	<NetPosId>	[1..1]	text{1,35}
2	Cash Account	<CshAcct>	[0..1]	
3	Identification	<Id>	[1..1]	Choice
4	IBAN	<IBAN>	[1..1]	text [A-Z]{2,2}[(0-9){0,9}[2,2]{a-zA-Z0-9}{1,30}]
4	Other	<Othr>	[1..1]	
5	Identification	<Id>	[1..1]	text{1,34}
5	Scheme Name	<SchmeNm>	[0..1]	Choice
5	Issuer	<Issr>	[0..1]	text{1,35}
3	Type	<Tp>	[0..1]	Choice
3	Currency	<Ccy>	[0..1]	text [A-Z]{3,3}
5	Name	<Nm>	[0..1]	text{1,70}
2	Status	<Sts>	[1..1]	text
3	Acknowledged Accepted			PACK
3	Rejected			REJT
2	Account Servicer Reference	<AcctSvcrRef>	[0..1]	text{1,35}
1	Supplementary Data	<SplmtryData>	[0..*]	

Precision of Amounts, Units, Prices, Rates

As-Is precision same as EIS, ISO representation differs for signed amounts

EIS Field	EIS Precision	ISO Precision
Unit Quantity (Cash Securities)	Integer 11	Total digits (td) =11, Fractional digits (fd) = 0
Number of Units (mFund)	18 Numeric, 6 Decimal	td = 18, fd = 6
Amount	15 <u>Signed</u> = 14 Numeric , 2 Decimal	<u>Credit Debit Indicator</u> (CR +ve/DR -ve) td =14, fd = 2
Currency	<u>Implied</u> AUD	Type list with <ccy = "AUD">
Price (Ask, Bid, First, Highest, Last, Lowest)	15 Numeric, 4 Decimal	1. To-be AMO interfacing using FIX not ISO 2. Deal Price added to EIS164 as td=15, fd=4
Unit Price (mFund)	11 Numeric, 6 Decimal	td=11, fd = 6

Reporting – message requirements and methods

Case Study: Request and delivery of *Cum* Entitlement Balances

1. CHESST Demand Reporting covers:

Request (EIS503), Ack (EIS526) or Reject/Nack (EIS518).

A generic 'trailer' (EIS538) indicates end-of message set

2. A report request covers multiple EIS message definitions

e.g. Cum Entitlement Balance returns EIS504, EIS520 (plus EIS538)

3. Selection Parameters restrict available output

Mapping to ISO messages

Report Request: ISO messages defined for business area data set

Selection parameters not part of message definition

→ **No generic Report Request, business area specific requests**

Partially mapped EIS503 guideline for CEB fields, EIS538 now 'pagination'

Report Messages: Simple to model if shared base message or Complex if multiple

- CEB results: both EIS504 and EIS520 mapped to semt.002

→ **Simple model with potential for a single CEB report guideline**

Confirmed as also applies to Report Ids **CFB, RPD, TSB, TSH**

→ **Complex model for FHT and FSI report guidelines**

1. Message Reference Table

Section	Message Number and Description	Sender	Recipient
16.8.2	503 Reporting Request	Participant	CHESST
16.8.2	526 Accepted Reporting Request	CHESST	Participant
16.8.2	518 Rejected Transaction	CHESST	Participant
16.8.4	538 End of Reporting	CHESST	Participant

2.

CEB Cum Entitlement Balance

The Cum Entitlement Balance report returns the number of cum entitlement units allocated to each holder for each corporate action.

The following CHESST messages are returned:

- 504 Cum Entitlement Daily Balance
- 520 Cum Entitlement Balance

3.

The selection parameters are:

- HIN
- Corporate Action Type ID
- Ex Date
- Security Code
- As At Date
- Subposition Type Parameter

Reporting – 1. simple & 2 complex report models

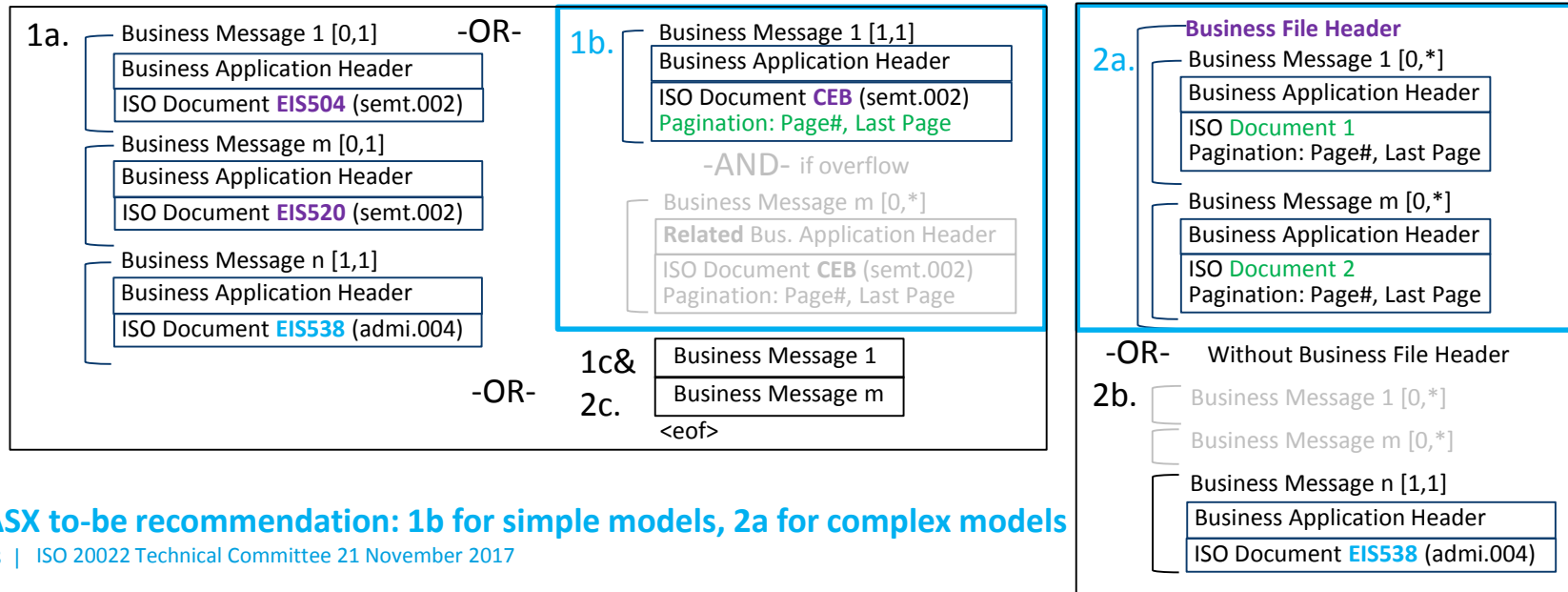
Options for instance per EIS or consolidate like instances

Simple report model

- 1a. As-is: Different Cum Entitlement messages for Daily Balance and Balance records (plus end-of-report)
- 1b. To-be: Rationalise and/or Consolidated Cum Entitlement messages based on single semt.002 (using pagination)

Complex Report Model

- 2a&b. To-be: Rationalise and/or Consolidate complex report model
 - 2a using Business File Header or 2b. using End-of-Report message
- 2c. Create file with record structure for each report type using xml and iso elements



ASX to-be recommendation: 1b for simple models, 2a for complex models

Demand Reporting mapping update

Single and Multiple base messages

Report Classification

Complex Guideline/
New Development

EIS Report descope

Confirmed as: Y Simple
Y Complex

EIS Demand Report mapping given ISO 20022 reporting best practices	Reporting Request	CEB Delivery	CFB Delivery	CMV Delivery	FGM Delivery	FHT Delivery	FSI Delivery	HBL Delivery	HLD Delivery	HLH Delivery	HMV Delivery	HSB Delivery	HTX Delivery	PFH Delivery	PFH Delivery	RAC Delivery	RPD Delivery	SDR Delivery	SMP Delivery	SMR Delivery	TCB Delivery	TFSB Delivery	TSH Delivery	USD Delivery	USH Delivery	Total Types & ISO base Msgs		
Simple (single ISO base message)	Y	Y	Y	Y	Y			Y	Y	Y		Y	Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y	Y	5 of 16	
acmt.014														1	1												6 of 26	
New Development	3																											
reda.012																		1										
reda.017																								1				
reda.017 or acmt.014																							1					
reda.021																							1					
reda.021 or reda.035									1																			
reda.021 or reda.037										1																		
reda.043																									1			
semt.002		2		1				4				1										1	2					
semt.006					1								2															
semt.016 or semt.017 or semt.002																												
semt.018			1																2									
seme.022 or camt.xxx																	1											
Complex (multiple ISO base messages)						Y	Y				Y					Y				Y							5 & 23	
camt.052											2																	
New Development																					1							
reda.009						1																						
semt.006						3																						
semt.017							1									1					1							
semt.017 or semt.002						11																						
semt.018							1														1							
semt.020 or camt.xxx																												
seme.022 or camt.xxx																												

Re-release of 2017 CHES Replacement ISO 20022 collection

End-of-Nov updated As-is guidelines for Technical Committee decisions and feedback

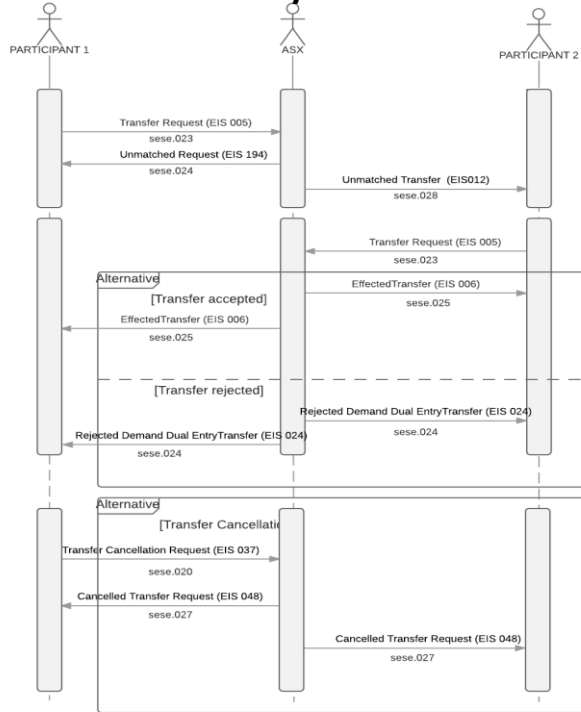
As-is Guidelines

- New Data Requirement annotations – identify values not present in equivalent EIS message
- Removed local-format supplementary data elements.
- Use of Supplementary Data instead of ISO message sets for EIS message mapping e.g. Balances on Transfers
- Choice of Party Identifier: 'AnyBIC' or User Identification Code. Same applies for <To> and <From> in BAH.
- DELlvery Movement Type for unilateral (single-sided) Transfers per Securities Market Practice Group (SMPG)
- Financial Instrument 'Issuer' of INFO not XASX for security codes
- Minimise inconsistent EIS mapping to same ISO base message (variations between base messages force some inconsistency)
- Enforced minimum lengths for EIS fields: References with min 1, Tx Id with min 16
- 'Formal' rules for mutually-exclusive 'choice' e.g. Financial Instrument. Future validation by SWIFT's 'Readiness portal'
- Guideline changes agreed in ASX responses to TC feedback.

To-be Updates (not applied)

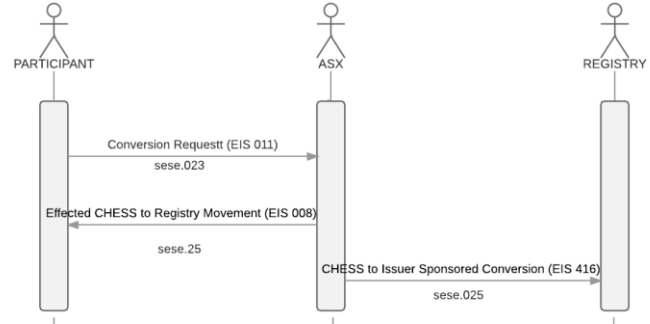
- Universal Time (UTC) and 'Zulu' format in Data Time elements (assume EIS164 Trade Date as-is). Time precision of 3 sub-seconds.
- Simplification of like and related guidelines with extensible and common schemas e.g. All EIS138 + EIS134 for netting pool
- Stamp Duty fields not carried forward

Demand Dual Entry CHES to CHES Transfer

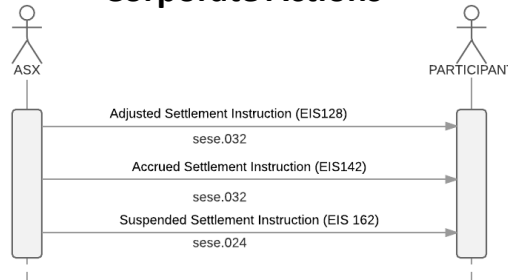


New Usage Guidelines for	
EIS 005	EIS 011
EIS 006	EIS 416
EIS 012	EIS 128
EIS 024	EIS 142
EIS 037	EIS 162
EIS 048	EIS 430

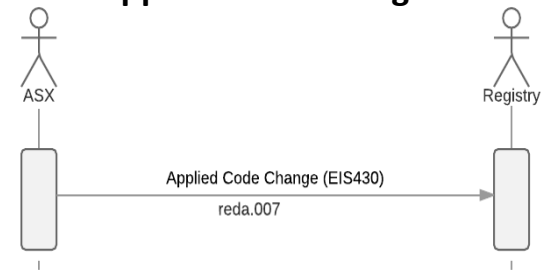
CHES to Issuer Sponsored Conversion



Corporate Actions



Applied Code Change



Closing

Next meeting

- Noted actions from this meeting
 - Member review of messages – EIS 005, 006, 012, 024, 037, 048, 011, 416, 128, 142, 162, 430
- Draft minutes from this meeting will be distributed for review
- Next meeting to be held in February 2018

Matters for consideration (2018):

- > Review ISO 20022 usage guideline feedback
 - > Delta model – open, close balances, movement
 - > Business Application header variants
 - > Simplify status messages
 - > Standardise transaction id mapping
 - > Review of target usage guidelines sets
- More information on CHES Replacement & Technical Committee documents:
<http://www.asx.com.au/services/chess-replacement.htm>
Or email ASX project team: CHESReplacement@asx.com.au

Thank you.