Integrated Trading and Clearing (ITaC) Working Group Session

4 April 2017

ITaC INTEGRATE ACCELERATE GROW

Agenda

Project 1b (Equity Derivatives Market) & ITaC Project 1c (Currency Derivatives Market)

1. Client Reference Data

- Trading Member codes
- Clearing Member codes
- Branches
- Trader ID standards and impact to clients
- Client engagement process and timeline for rollout
- Client reference data setup in the Trading system
- Client reference data setup in the Post-trade system
  - Position account view
  - Risk and Collateral view
  - Clearing through different Clearing Members
- Clearing implication of consolidated codes

Agenda (continued)

2. Instrument Reference Data

- Instrument Reference Data changes overview
  - New naming standards
  - New/additional instrument identifiers
  - Mapping old contract codes to new contract codes
  - Mapping old instrument types to new instrument types
  - Dividend Neutral changes
  - Automation of Corporate Actions processing

- User created instruments
  - Process for creation and limitations

3. Trading versus Post-trade (Deal Management and Clearing) functionality

- Client facing functions and interfaces
- Off Book Trading vs. Deal Management - distinction for Give-Up trades
- Deal Management Actions allowed

Client Reference Data

Maria Dalle Ave, Martin Koch & Andre Koen

Client Reference Data

Trading Member Codes

- Currently
  - Trading Member Codes are 2-7 **alphanumeric** (a-z, A-Z, 0-9) characters long
  - Trading Members exist in all markets that they operate in

- In preparation for ITaC Project 1b & Project 1c go-live
  - Trading and Clearing Member Reference Data will be migrated from Nuclears to JSE's central reference data system
  - Trading Member Codes will be standardised to a 3 character **alpha** code (A-Z caps only)
  - Trading Members in the Derivatives Market who are part of the same legal entity will be combined into **one Trading Member** post ITaC

Client Reference Data

Trading Member codes example

			To-Be (Post ITaC)	(As-Is) Current	
Firm	Market	CM	TM Code (ITaC)	Current TM code (Nutron/Nuclears)	
ABC Securities	ED	CM1	**ABC**	ABCM	TM 'ABC' clears through one CM
ABC Securities	FXD	CM1	**ABC**	ABCY	
DEF Securities	ED	CM2	**DEF**	DEFM	TM 'DEF' clears through two different CMs
DEF Securities	FXD	CM3	**DEF**	DEFY	

Client Reference Data

Clearing Member codes

- Currently
  - Clearing Member codes are 2-7 **alphanumeric** (A-Z, 0-9) characters long
  - Clearing Members exist in all markets that they operate in

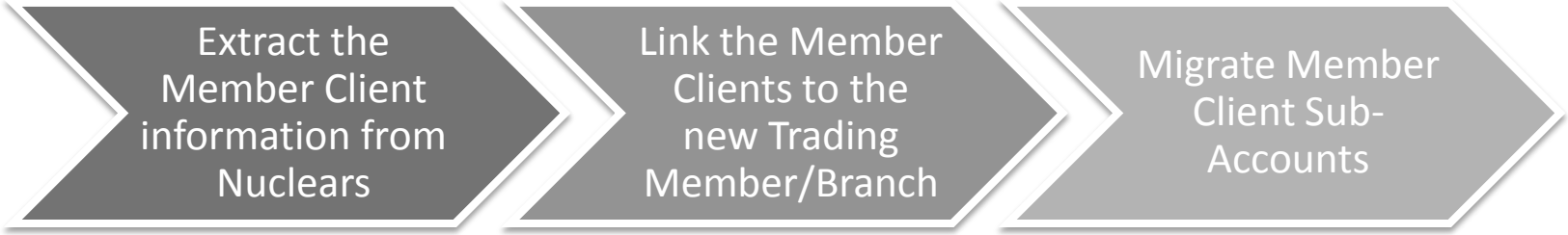
- Post ITaC Project 1b & Project 1c go-live
  - Clearing Member Codes will be standardised to a 3 character **alpha** code (A-Z caps only)
  - Clearing Members who are part of the same legal entity will be combined into **one Clearing Member**
    - New combined Clearing Member will adopt all clearing arrangements of the combined entities
    - Redundant Clearing Member codes will be considered inactive / no longer available as part of ITaC

Client Reference Data

Branches

- Branches will be migrated from Nuclears to the JSE's central reference data system in their current state as part of the ITaC project
- A Branch will be:
  - Linked to the Trading Member they belong to
  - Used for Post-trade deal management activities
  - A trade can be allocated to a Branch or a Main Member
  - Post-trade system will use the account code on the trade to allocate it to the correct Member/Branch

- Process for linking Member Client data to Branch:



- The Member Client Code will remain unchanged and will be unique

Client Reference Data

Trader ID standards and impact to clients

- Currently, Trader (dealer) codes are 4-7 **alphanumeric** (A-Z, 0-9) characters long

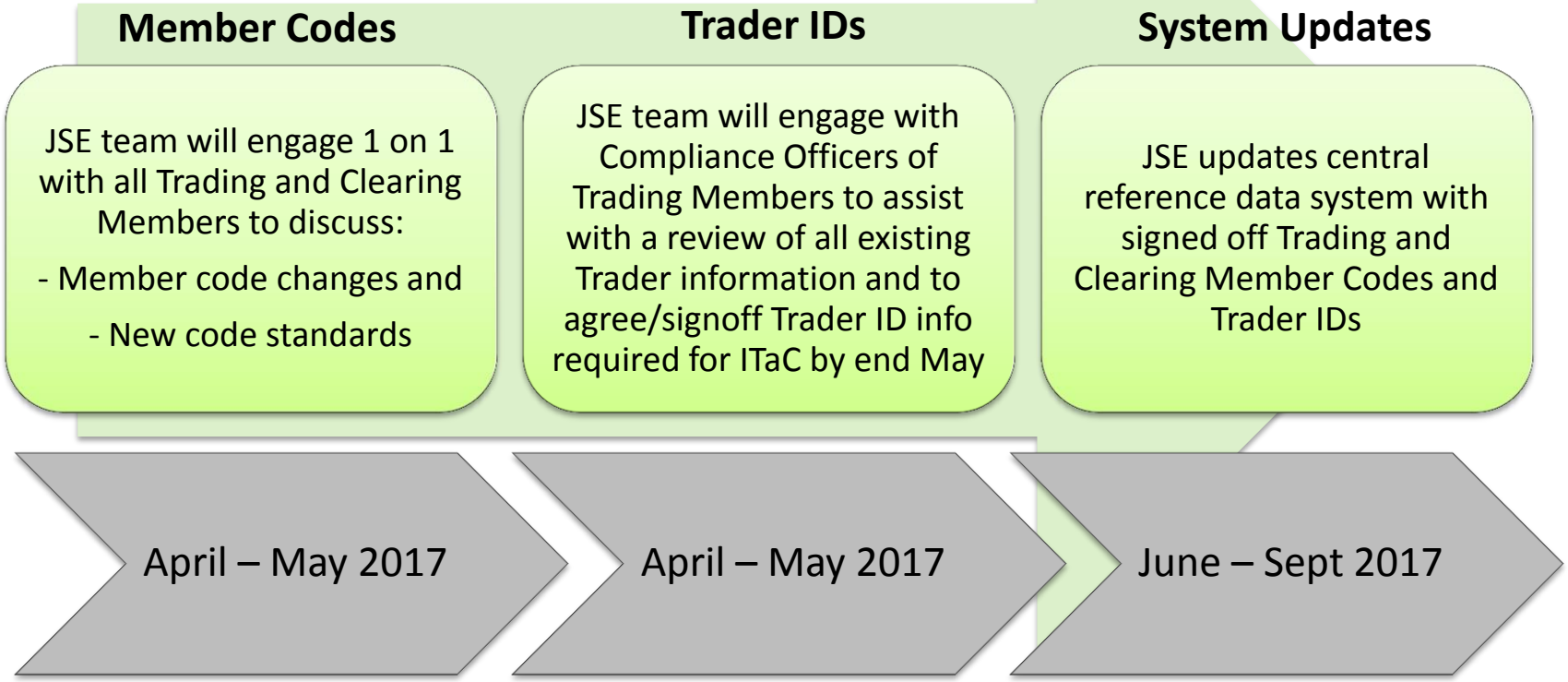
Post ITaC Project 1b & Project 1c go-live

- New Trader ID standard is 5 **numeric** digits (0-9) (previous called dealer codes)
- Traders registered in the Equity Derivatives and Currency Derivatives Markets will have one common numeric Trader ID for ITaC
- Where traders have multiple Nutron Logon IDs in the same market today either for the Equity Derivatives Market or Currency Derivatives Market - only one unique Trader ID will be allowed for ITaC
- JSE will migrate the trader information from Nuclears to the JSE's central reference data system

- We will request your assistance to audit the Trader IDs prior to migrating the trader information to the new systems

Client Reference Data

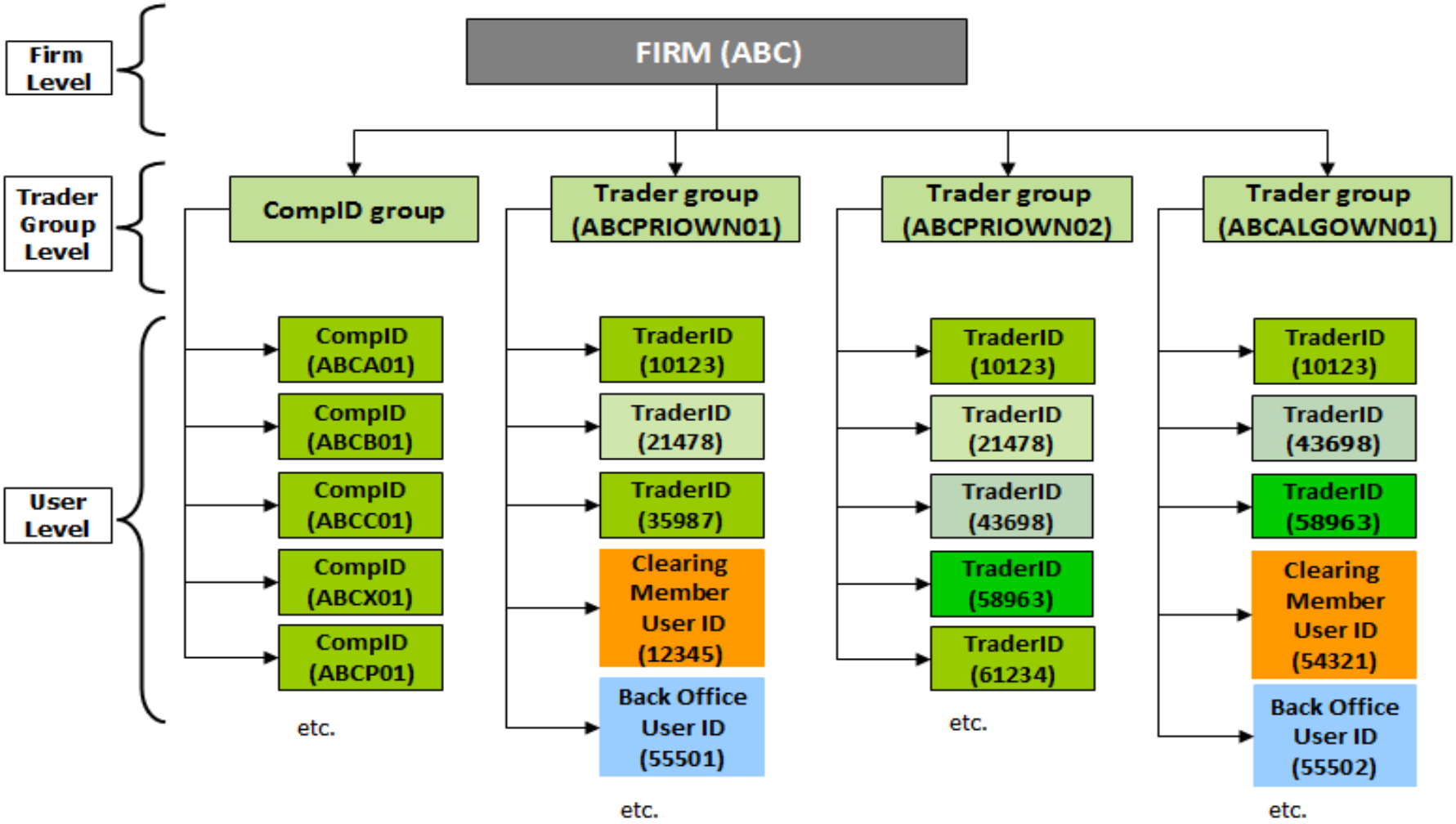
Client engagement process and timeline for rollout



ITaC INTEGRATE ACCELERATE GROW

Client Reference Data

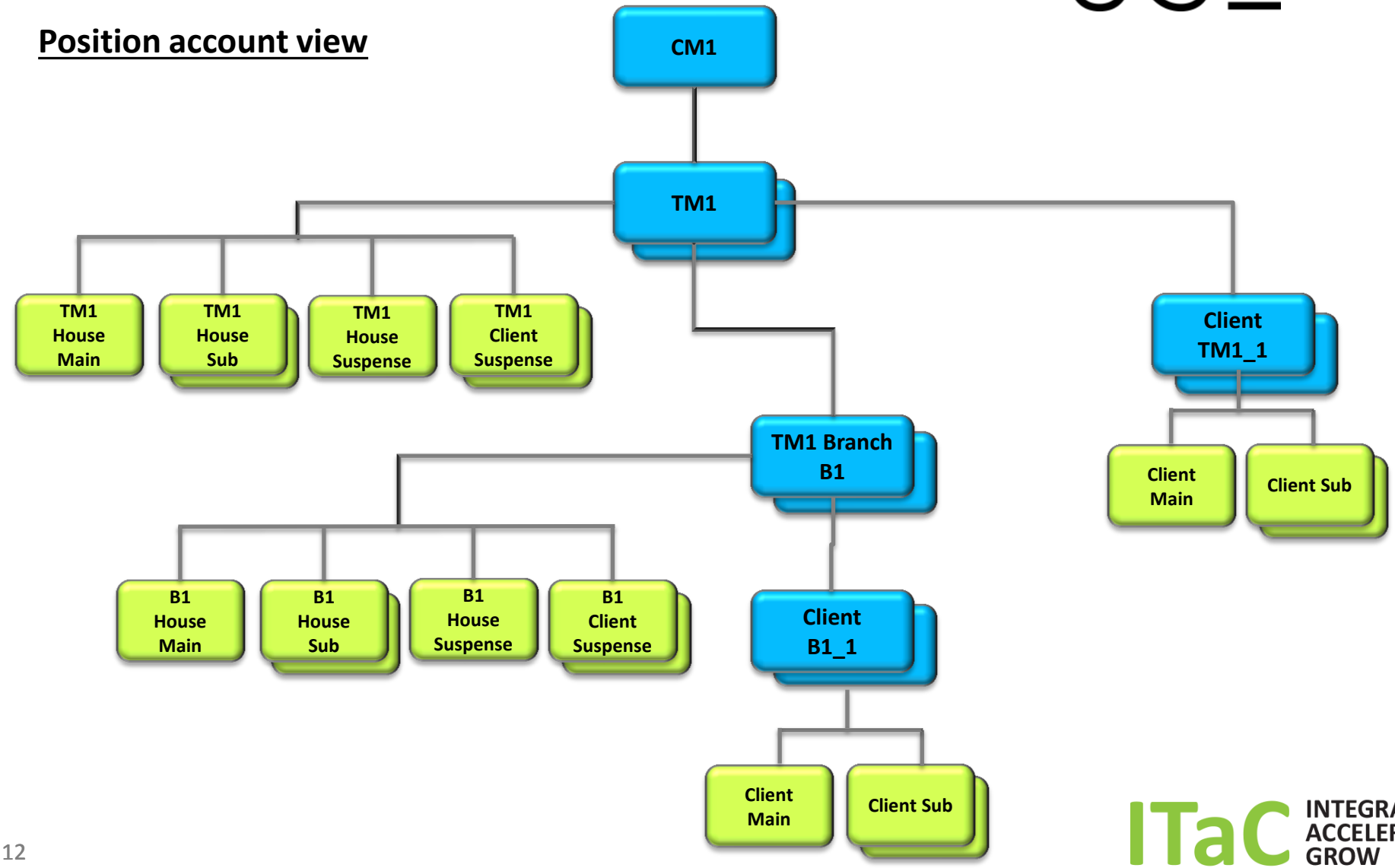
Client reference data setup in the Trading system



Client Reference Data

Client Reference Data setup in the Post-trade system

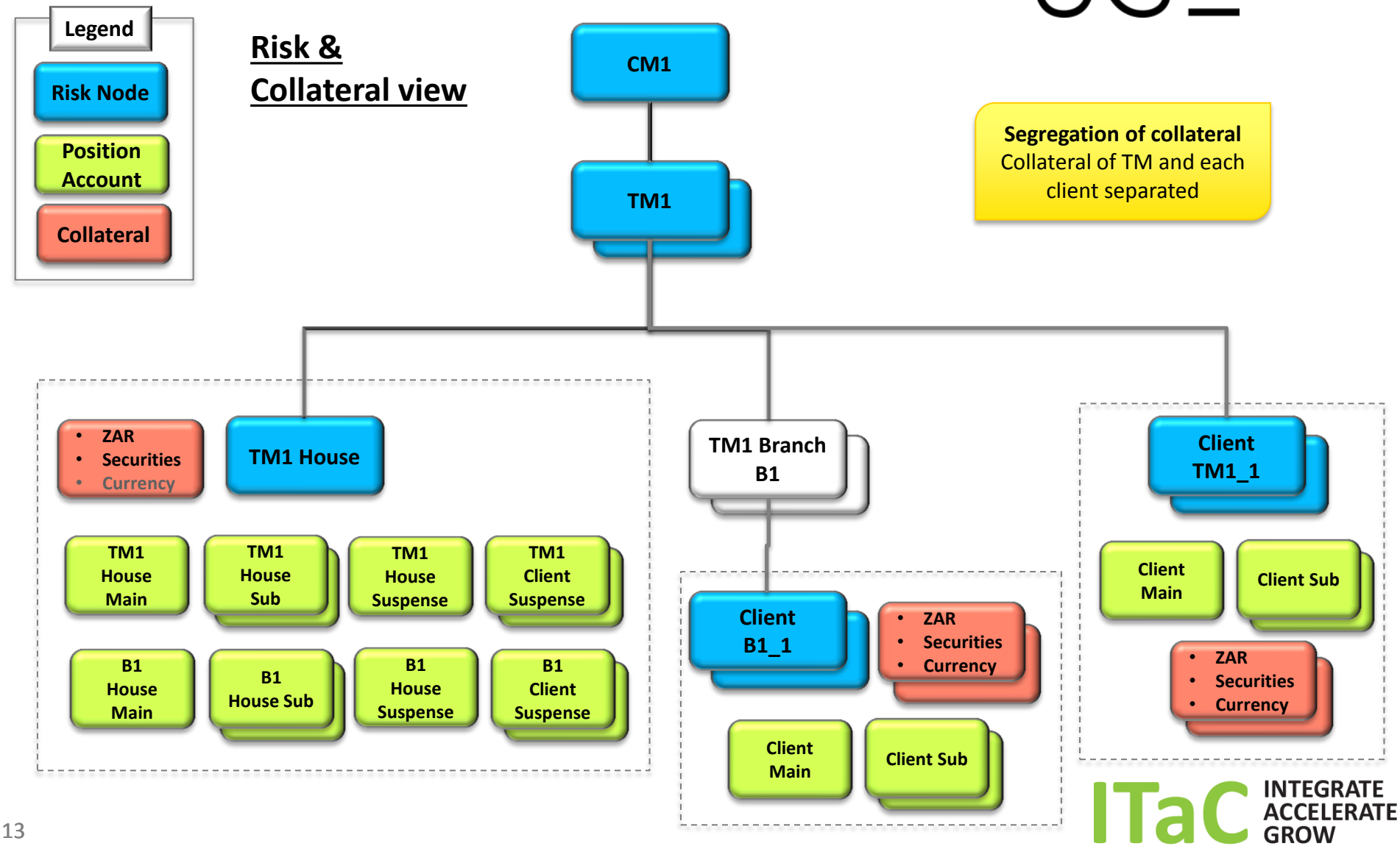
Position account view



ITaC INTEGRATE ACCELERATE GROW

Client Reference Data

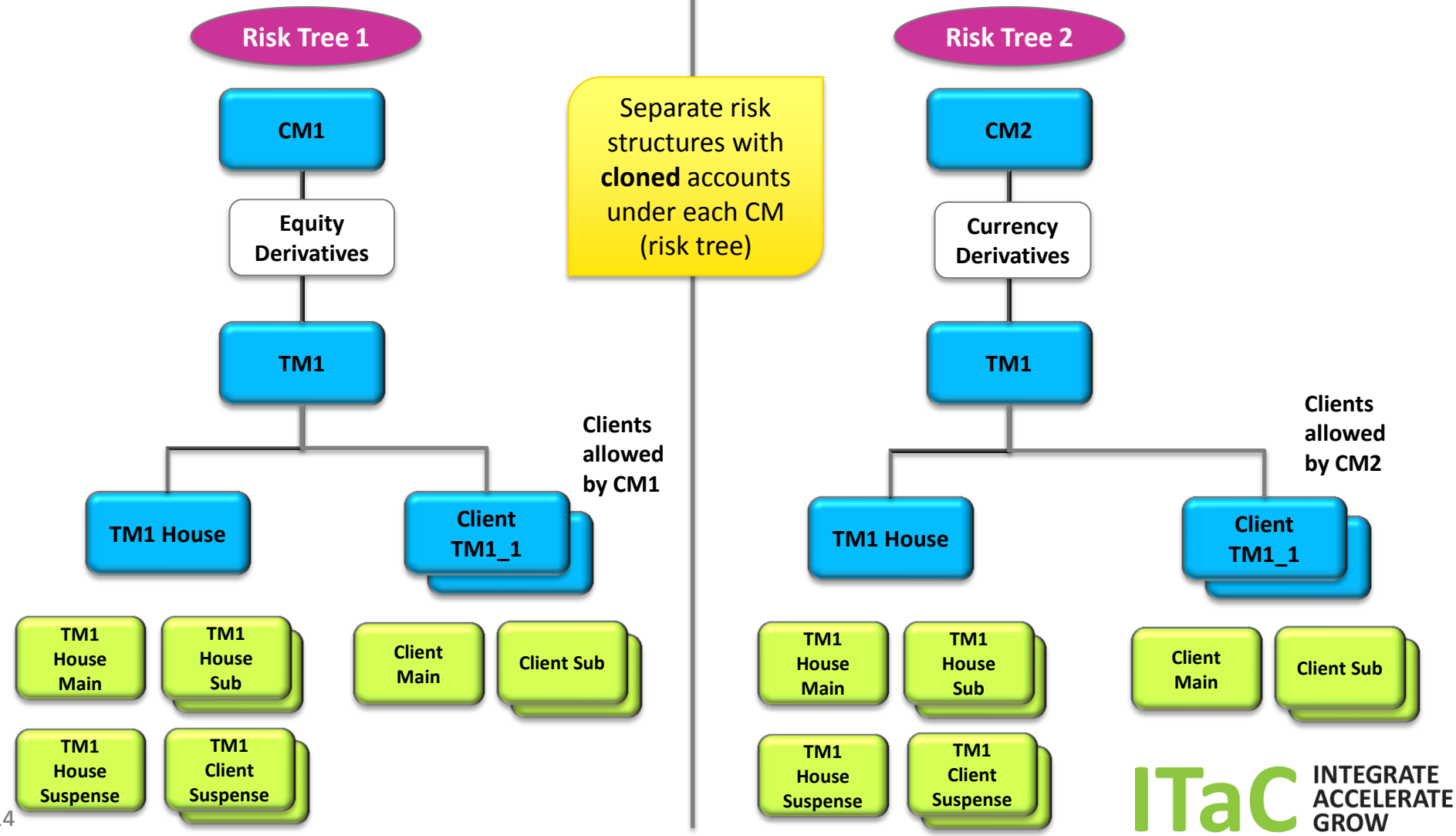
Client Reference Data setup in the Post-trade system



Client Reference Data

Client Reference Data setup in the Post-trade system

Clearing through different CMs



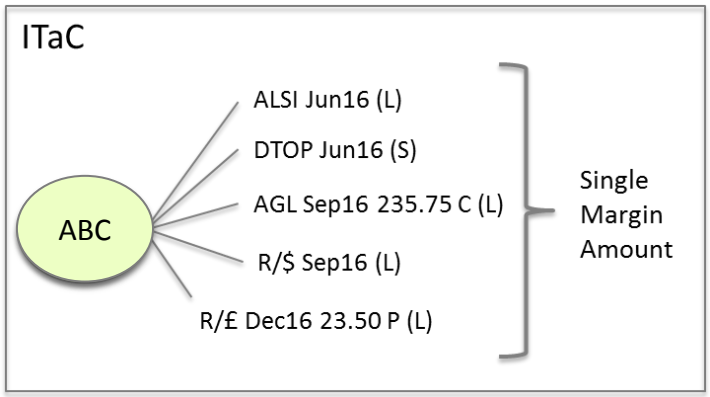
Client Reference Data

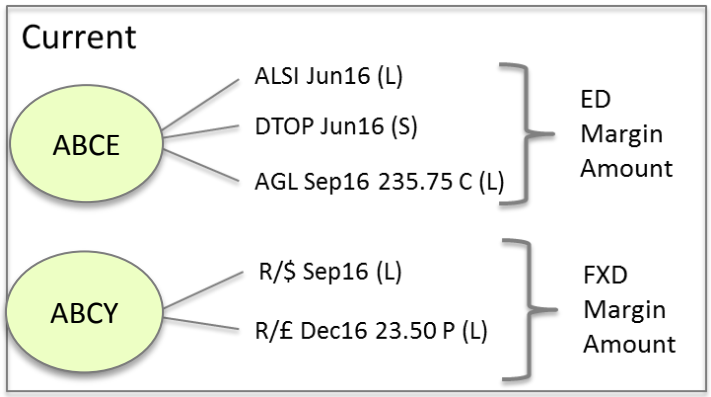
Clearing implication of consolidated codes

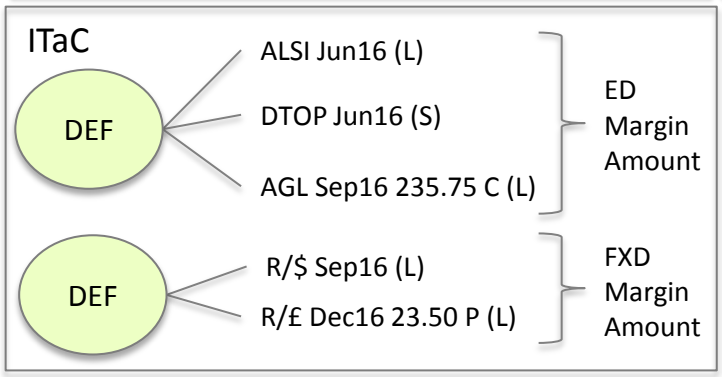
			To-Be(Post ITaC)	As-Is
Firm	**Market**	**CM**	**TM Code**	**TM code**
ABC Securities	ED	CM1	**ABC**	ABCE
ABC Securities	FXD	CM1	**ABC**	ABCY
DEF Securities	ED	CM2	**DEF**	DEFE
DEF Securities	FXD	CM3	**DEF**	DEFY

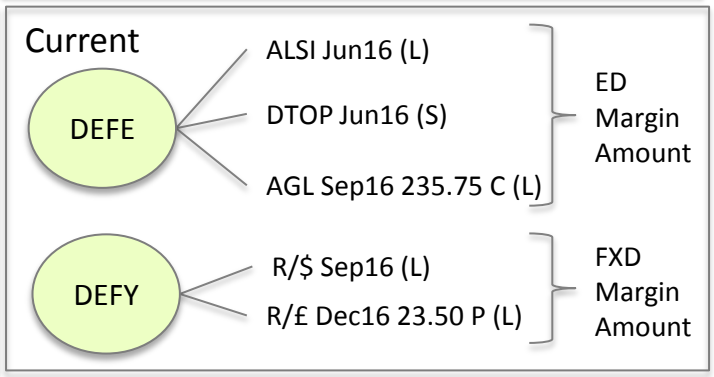
TM 'ABC' clears through one CM

TM 'DEF' clears through two different CMs









Instrument Reference Data

Maryke Swanepoel, Andre Koen & Martin Koch

Instrument Reference Data

New naming standards

- Three Instrument Identifiers
  - **Contract Code** (replacing the existing four character code)
  - International Securities Identification Number (ISIN)
  - Unique ID (Numeric)

- **New Contract Code standard**
  - Concatenation of fields

    e.g. <EXPIRY DATE> <ALPHA CODE> <SETTLEMENT TYPE> <CALL/PUT> <STRIKE>

  - Max length: 50
  - Examples:
    - 01DEC15 AGL PHY ANY DN
    - 01DEC15 AGL PHY ANY 23.99C
    - 17DEC15 GOOGL CSH
    - 01DEC15 GOOGL CSH QUANTO 23.99C
    - 01DEC15 USDZAR ANYDAY
    - 17DEC15 USDZAR QUANTO 23.999C
    - 17DEC15 ALSI MINI

Instrument Reference Data

New/additional instrument identifiers

- **International Securities Identification Number (ISIN) standard:**
  - **Equity Derivatives**
    - Futures: **ZAD…**
    - Options: **ZAD<*>…**
  - **Currency Derivatives**
    - Futures: **ZAF…**
    - Options: **ZAF<*>…**
  - **Commodity Derivatives (Project 2)**
    - Futures: **ZAC…**
    - Options: **ZAC<*>…**
  - **Interest Rate Derivatives (Project 2)**
    - Futures: **ZAI…**
    - Options: **ZAI<*>**

Instrument Reference Data

Mapping old contract codes to new contract codes

- Existing four character Contract Code will be mapped to each contract that exists at go-live. We will call this the **Old System Code**
- A Instrument Contract code mapping will be made available before go-live, but with new instruments being added daily, the final mappings will be made available on the go-live weekend
- Format in which this mapping will be made available is still to be confirmed
- For Equity Derivatives and Currency Derivatives post ITaC go-live
  - Old system code - four character code will not be allocated to any new instruments that are listed or that are created as a result of corporate actions
  - Only the new instrument identifiers will be created

Instrument Reference Data

Mapping old instrument types to new instrument types

- A mapping between the existing instrument types and how these instruments will be classified in the ITaC systems will be made available prior to ITaC go-live

- Instrument standards
  - Correct Underlying names will be used for all contracts e.g 17DEC15 ALMI will now be 17DEC15 ALSI MINI

  - Many instrument types that are currently classified as CanDo's will now have standardised instrument types and will not be part of 'Structured Products' e.g. Anydays and Quantos

Instrument Reference Data

Dividend Neutral changes

- Current system (Nutron) the Dividend Neutral is a virtual contract meaning that when the Dividend Neutral (N) contract is traded the system creates an equivalent SSF (Q) and Dividend Future (F) in equal amounts, for example:
  - Member A Buy 100 15 Jun17 AGLN
    - Member A long 100 15 Jun17 AGLQ
    - Member A long 100 15 Jun17 AGLF

- As the Dividend on AGL goes Ex on the underlying market the JSE process a Journal transaction to accommodate the Dividend going EX on the Dividend Future

- In the new ITaC implementation - the Dividend Future will no longer exist as the Dividend Neutral contract will now be “one” contract and the Journal transaction will be processed on this contract

- Main reason for the removal of the Dividend Future, when Members roll over their SSF contracts to the next expiry they do not always roll the Dividend Future

Instrument Reference Data

Automation of Corporate Actions processing

- Corporate Actions processing will be automated
  - Reference data updates – Master Data System (MDS)
  - Position adjustments – Post-trade Clearing System (RTC)

- Corporate Actions on derivatives will now be managed by the same team that manages equity corporate actions

- Market Notices will still be manual for now

- Corporate Actions on International Equities will be sourced from Thomson Reuters

Instrument Reference Data

User created instruments

- Instrument Types permitted for user created Instruments:
  - AnyDay Futures
  - AnyDay (Naked) Options
  - Delta Options
  - Forward/Forward FX

- Instruments that are eligible for user-creation can be found in the client Trading reference data (CSV) files
- Futures can only be created if existing Futures Contracts already exist on the same underlying instrument known as Reference Instrument
- Instruments can only be created with a date before that of the furthest expiry
- Instruments created intra-day will be disseminated via the MITCH Market Data Gateways
- Embellished data will be added to the client Trading reference data (CSV) files as part of the batch end of day (EOD) run

Instrument Reference Data: User created instruments

Creating an AnyDay Future

Step 1:
Identify eligible Reference Instrument

- Value in *Expiry Group* field
- *User Creation Allowed* field must have a value of either '1' (AnyDay Future) or '3' (AnyDay Future and Naked Option)

Step 2:
Create AnyDay Future

- Key fields the Message:
  - Reference Instrument, Maturity Date, Reference Price, Security Type

Step 3:
Validation by JSE Trading System

- No existing instruments with same underlying, Instrument Category, Sub-Category and Expiry Date
- Expiry Date is before last standard contract
- Expiry Date is not a holiday or FCO
- Validate Reference Instrument

Step 4:
Update additional info by JSE Trading System

- Instrument Category – "AnyDay"
- Instrument ID – JSE System generated
- Symbol – using symbol naming convention

Instrument Reference Data: User created instruments

Creating an AnyDay (Naked) Option

Step 1:
Identify eligible Reference Instrument

- At least one Options Expiry Date populated
- *User Creation Allowed* field must have a value of either '2' (Naked Option Only) or '3' (AnyDay Future and Naked Option)

Step 2:
Create AnyDay Option

- Key inputs for the Message:
  - Reference Instrument, Maturity Date, Reference Price, Strike Price, Security Type

Step 3:
Validation by JSE Trading System

- No existing instruments with same underlying, Expiry Date, Strike Price, Option Type (Call/Put)
- Strike Price is multiple of Strike Interval
- Expiry Date is valid based on Expiry date of the Underlying Reference Instrument

Step 4:
Update additional info by JSE Trading System

- Instrument Category – "Option"
- Instrument ID – JSE System generated
- Symbol – using symbol naming convention
- Exercise Style – "American"
- Security Description – from Reference Instrument

Instrument Reference Data: User created instruments

Creating a Forward Forward FX

Step 1:
Identify eligible Reference Instrument

- *User Creation Allowed* field must have a value of either '1' (Allowed)

Step 2:
Create Forward Forward FX

- Key inputs for the Message:
  - Reference Instrument, Security Type, Maturity Date (Near), Far Maturity Date, Near Month Type, Far Month Type

Step 3:
Validation by JSE Trading System

- No existing instruments with identical legs
- Reference instrument is a valid FwdFwd instrument
- Far Month Maturity Date is less than the Near Month Maturity Date of the Reference Instrument
- Time difference field in the reference instrument matches the request

Step 4:
Update additional info by JSE Trading System

- Time Difference – from the Reference Instrument
- Instrument Category – "FwdFwd"
- Symbol – using symbol naming convention

Instrument Reference Data: User created instruments

Creating a Delta Option

Step 1:
Identify eligible Reference Instrument

- At least one Options Expiry Date populated
- *User Creation Allowed* field must have a value of either '2' (Naked Option Only) or '3' (AnyDay Future and Naked Option)

Step 2:
Create Delta Option

- Key inputs for the Message:
  - Reference Instrument, Security Type

Step 3:
Validation by JSE Trading System

- Option Strike Interval of the "Leg 1 Futures instrument" is not null or zero
- No existing instruments with identical legs

Step 4:
Update additional info by JSE Trading System

- Expiry Date – Same as Leg 2 Options instrument"
- Instrument Category – "Delta_Opt"
- Instrument ID – JSE System generated
- Symbol – using symbol naming convention
- Leg 1 Instrument – Future Instrument
- Leg 2 Instrument – Option Reference Instrument
- Security Description – from underlying Option
- Option Type – "Call Delta" or "Put Delta"

Distinction between Trading and Post-trade (Deal Management and Clearing) Functions

Matthias Kempgen

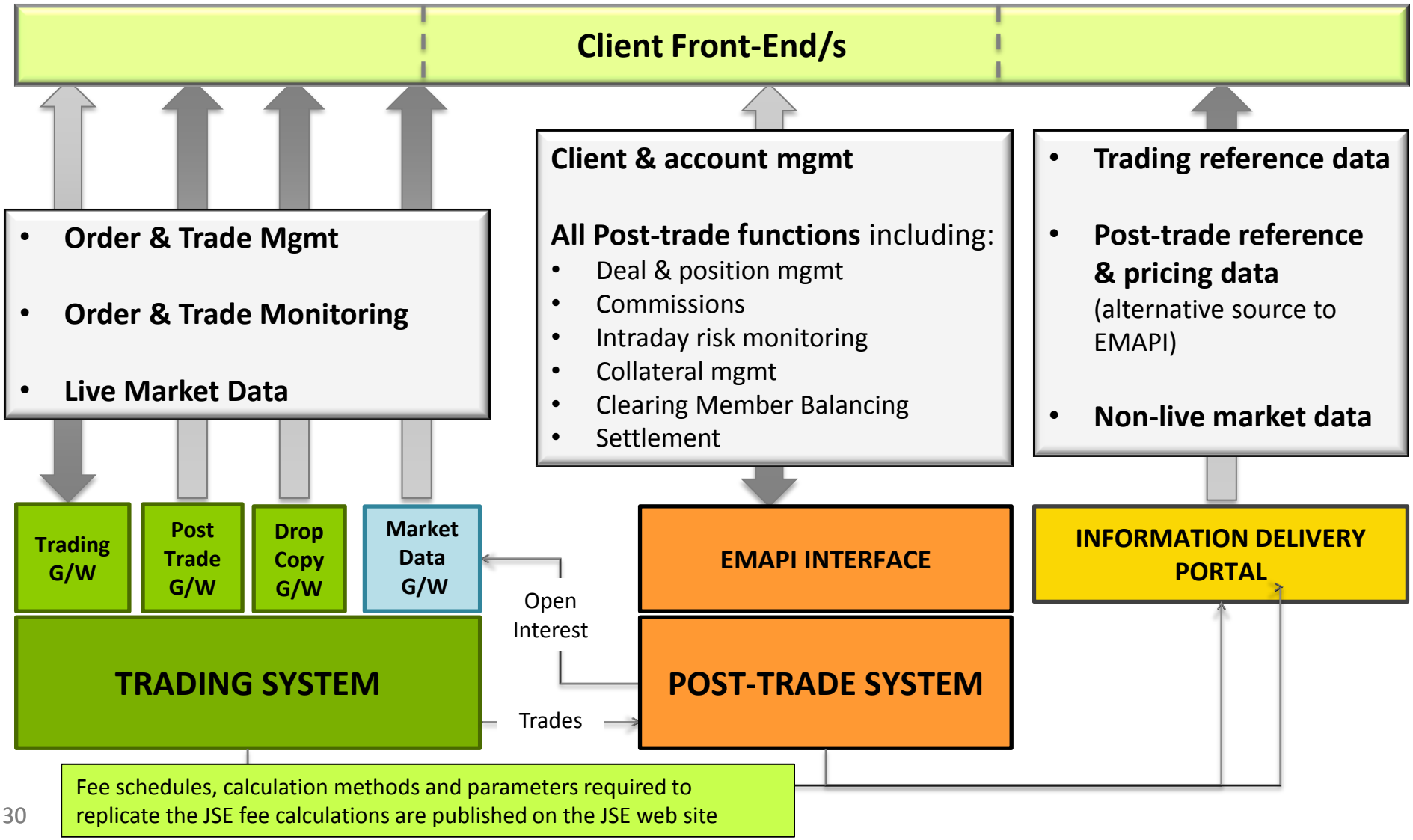
Trading and Post-trade (Deal Management & Clearing)

Client facing functions and interfaces

- Guidance note ITaC Client Facing Functions and Interfaces was published 15 March 2017 (see Service Hotline 48/2017)
- Provides an **overview of ALL client facing functions** facilitated by the ITaC solution
- Function category
  - Trading, Market Data and Post-trade
- Relevance and availability of each function for
  - Trading Members, Clearing Members and Information Subscribers
- Interface via which functions are performed
  - Trading System
  - Post-trade System
  - Information Delivery Portal (IDP)
  - JSE website

Trading and Post-trade (Deal Management & Clearing)

Client facing functions and interfaces (contd.)



Trading and Post-trade (Deal Management & Clearing)

Client facing functions and interfaces (contd.)

				Availability		
Category	**Sub-category**	**Function**	**Interface**	**TM**	**CM**	**IS**
Trading	Reference data subscription	Real-time Trading reference data	Trading System	Y	Y	Y
		Trading reference data - fully embellished	Information Delivery Portal	Y	Y	Y
	Reference data management	Creation of user-created instruments e.g. new strikes or anyday contracts	Trading System	Y		
	Order & trade management	On Book order and quote management	Trading System	Y		
		Off Book trading (submit/accept/reject Off Book trades)	Trading System	Y	Y (OBO[1])	
		Perform trade cancellation of On Book trade	Trading System	Y		
		Perform trade cancellation of Off Book trade	Trading System	Y	Y (OBO)	
	Order & trade monitoring	Receive real-time copies of order status and trade executions directly from the trading engine	Trading System	Y	Y	

[1] *OBO - On-Behalf-Of. An activity performed by a Clearing Member On-Behalf-Of a Trading Member.*

CM - Clearing Member, TM - Trading Member, IS - Information Subscriber

Trading and Post-trade (Deal Management & Clearing)

Client facing functions and interfaces (contd.)

				Availability		
Category	**Sub-category**	**Function**	**Interface**	**TM**	**CM**	**IS**
Market Data	Live Market Data	Full Depth Market Data	Market Data Gateway	Y	Y	Y
		Top of Book service showing Best Bid and Offer	Market Data Gateway	Y	Y	Y
		Price feeds on the JSE web	JSE Web	Y	Y	Y
	Non-live Market Data	Non-live data products	Information Delivery Portal	Y	Y	Y
		Web reports	JSE Web	Y	Y	Y

[1]OBO - On-Behalf-Of. An activity performed by a Clearing Member On-Behalf-Of a Trading Member.

Trading and Post-trade (Deal Management & Clearing)

Client facing functions and interfaces (contd.)

				Availability		
Category	**Sub-category**	**Function**	**Interface**	**TM**	**CM**	**IS**
Post-trade	Reference & market data subscription (public)	Post-trade reference data *Includes reference data relating to instruments, currencies, volatility surfaces, curves, margin and risk parameters and collateral.*	Post-trade System	Y	Y	Y
		Post-trade reference data *As above (alternative channel)*	Information Delivery Portal	Y	Y	Y
		Post-trade market data *Information required by participants for operational purposes and includes prices (periodic intraday updates, scheduled/early valuations, settlement prices), rates, volatility surfaces, curves, dividends, risk arrays*	Post-trade System	Y	Y	Y
		Post-trade market data *As above and including stressed prices*	Information Delivery Portal	Y	Y	Y
	Reference data subscription (private)	Clearing Members, Trading Members and Branches	Post-trade System	Y	Y	
		Member clients and member client updates	Post-trade System	Y	Y	
		Accounts and account updates	Post-trade System	Y	Y	
	Reference data management	Member client maintenance	Post-trade System	Y		
		Position account maintenance	Post-trade System	Y		

Trading and Post-trade (Deal Management & Clearing)

Client facing functions and interfaces (contd.)

				Availability		
Category	**Sub-category**	**Function**	**Interface**	**TM**	**CM**	**IS**
Post-trade	Deal Management	Receive deal updates *Deal updates result from trade executions, deal and position management actions, transfers and corporate actions.*	Post-trade System	Y	Y	
		Allocate a trade	Post-trade System	Y	Y (OBO)	
		Correct allocation error	Post-trade System	Y	Y (OBO)	
		Correct principal	Post-trade System	Y	Y (OBO)	
		Modify trade sub account	Post-trade System	Y	Y (OBO)	
		Accumulate trades	Post-trade System	Y	Y (OBO)	
		Assign trade (initiator)	Post-trade System	Y	Y (OBO)	
		Allocate trade (tripartite) (initiator)	Post-trade System	Y	Y (OBO)	
		Cancel assigned or tripartite trade (initiator)	Post-trade System	Y	Y (OBO)	
		Accept assigned or tripartite trade (recipient)	Post-trade System	Y	Y (OBO)	
		Reject assigned or tripartite trade (recipient)	Post-trade System	Y	Y (OBO)	

Trading and Post-trade (Deal Management & Clearing)

Client facing functions and interfaces (contd.)

				Availability		
Category	**Sub-category**	**Function**	**Interface**	**TM**	**CM**	**IS**
Post-trade	Position Management	Receive position updates *Position updates result from trade executions, deal and position management actions, transfers and corporate actions.*	Post-trade System	Y	Y	
		Modify position sub account	Post-trade System	Y	Y (OBO)	
		Request early exercise of an option position	Post-trade System	Y		
		Request abandon of an option position	Post-trade System	Y		
	Commissions	Submit, cancel, reject commissions *Commission values (in ZAR) can be submitted per trade or as an aggregated amount per counterparty*	Post-trade System	Y	Y (OBO)	
		Receive commissions *As commissions are submitted, cancelled or rejected*	Post-trade System	Y	Y	
		Receive all commission entries for the day via snapshot on request	Post-trade System	Y	Y	
		Receive aggregated commissions *In daily account summaries at end of day*	Post-trade System		Y	
	Intraday risk monitoring	Set exposure thresholds on accounts (TM sets on clients, CM sets on TM)	Post-trade System	Y	Y	
		Receive updates on exposures, variation margin, indicative initial margin, other risk metrics and collateral values	Post-trade System	Y	Y	
		Receive alerts when set thresholds are breached	Post-trade System	Y	Y	

Trading and Post-trade (Deal Management & Clearing)

Client facing functions and interfaces (contd.)

				Availability		
Category	**Sub-category**	**Function**	**Interface**	**TM**	**CM**	**IS**
Post-trade	Collateral management	Set minimum cash percentage for Trading Members and Clients	Post-trade System	Y	Y	
		Receive and confirm/reject security collateral withdrawal requests (intraday)	Post-trade System		Y	
		Receive notification of other cash movements due to collateral movements e.g. collateral top-ups (intraday)	Post-trade System		Y	
		Receive collateral holdings down to client level (EOD and intraday)	Post-trade System	Y	Y	
		Receive foreign currency collateral requests (together with eligibility criteria, haircuts and FX rates)	Post-trade System		Y	
		Confirm foreign currency collateral postings per client to the Clearing House	Post-trade System		Y	

Trading and Post-trade (Deal Management & Clearing)

Client facing functions and interfaces (contd.)

				Availability		
Category	**Sub-category**	**Function**	**Interface**	**TM**	**CM**	**IS**
Post-trade	Clearing Member balancing functions	Receive margins, funding and dividend payments, fees and commissions (At EOD and in the event of an ad-hoc intraday margin call (in latter case only margins are published))	Post-trade System		Y	
		Clearing Member confirmation of balancing to JSE Clear on margins, funding and dividend payments, fees and commissions (EOD)	Post-trade System		Y	
	Settlement	Receive daily net settlement amounts (ZAR, FX cash)	Post-trade System		Y	
		Execution and confirmation of cash settlements	SWIFT		Y	
		Physical delivery report	Email	Y	Y	

Off Book Trading vs Deal Management

Distinction for Give-up trades

- When trading in a **principle capacity**
  - A Give-Up is generated by capturing an Off Book trade on the Trading System
- When acting in an **agency capacity**
  - A Give-Up is generated through deal management on the Post-trade System, using the assign or tripartite functions
  - Except on T+1 when an Off Book trade must be captured on the Trading System to generate the Give-Up (as it is not possible to deal manage the previous day's trades)

Deal Management

Actions allowed

Capacity	State of Deal* in RTC	Action allowed
Principal	-	• Accumulate • Deal sub account modification • Position sub account modification • Principal correction • Allocate **on exception basis only** • Allocation error correction
Agency	Deal is on client suspense account	• Accumulate • Allocate • Assign • Tripartite • Deal sub account modification • Position sub account modification
	Deal is on client account	• Accumulate • Allocation correction • Principal correction

** A deal is one side of a trade i.e. either the buy leg or sell leg of the trade*

Questions?

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This presentation will be available post this session at the following link:- https://www.jse.co.za/services/itac

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