

Integrated Trading & Clearing (ITaC) Working Group

Derivative Clearing Member focus

5 September 2016



- **Welcome and objectives of the workshops – *Brett Kotze***
- Project status update – *Alex Comninos*
- ITaC Clearing topics for today's session
 - ITaC systems and key business changes – *Alex Comninos*
 - The flows in a normal business day – *Brett Kotze*
 - EOD balancing – *Brett Kotze*
 - Reference data management (entity, instrument, other) – *Andre Koen*
 - Firm and user set up and access on the trading and clearing systems – *Andre Koen*
 - On behalf of functionality and give-up trades – *Andre Koen*
- User readiness – *Tyrone Arendse*

Objectives



- A series of dedicated Clearing Member workshops that focus on the key changes as a result of the JSE ITaC project
- Create a 'workshop' type environment that encourages informal discussion
- Address key ITaC related concerns and challenges for Clearing Members



Clearing Member and software provider contribution to the discussions is vital to the success of these sessions

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Project Status

ITaC Programme Overview



Project 1

- Phase 1a: Equity Market Upgrade & EME (Trading only)
 - Target Q3 2016
- Phase 1b: Equity Derivatives
 - Target Q2/Q3 2017
- Phase 1c: Currency Derivatives
 - Target 2 months post Phase 1b

Project 2

- Commodity Derivatives
- Interest Rate Derivatives
- Cash Bonds

Project 3

- Cash Equities (Clearing only)

Project Status

Phase 1 b & c (Equity Derivative and Currency Derivative)



Completed

- Requirements, development and system testing
- Trading specifications published and Trading CTS launched
- **RTC EMAPI specifications published in May 2016**
- **RTC Customer Test Service launched on 30 August 2016**



All ITaC documentation published to date is available at <https://www.jse.co.za/services/itac>

In Progress

- System Integration Testing (SIT)
- UAT planning including Clearing Member UAT
- Technical Working Groups and focus sessions ongoing
- Client and software provider development to EMAPI



Upcoming

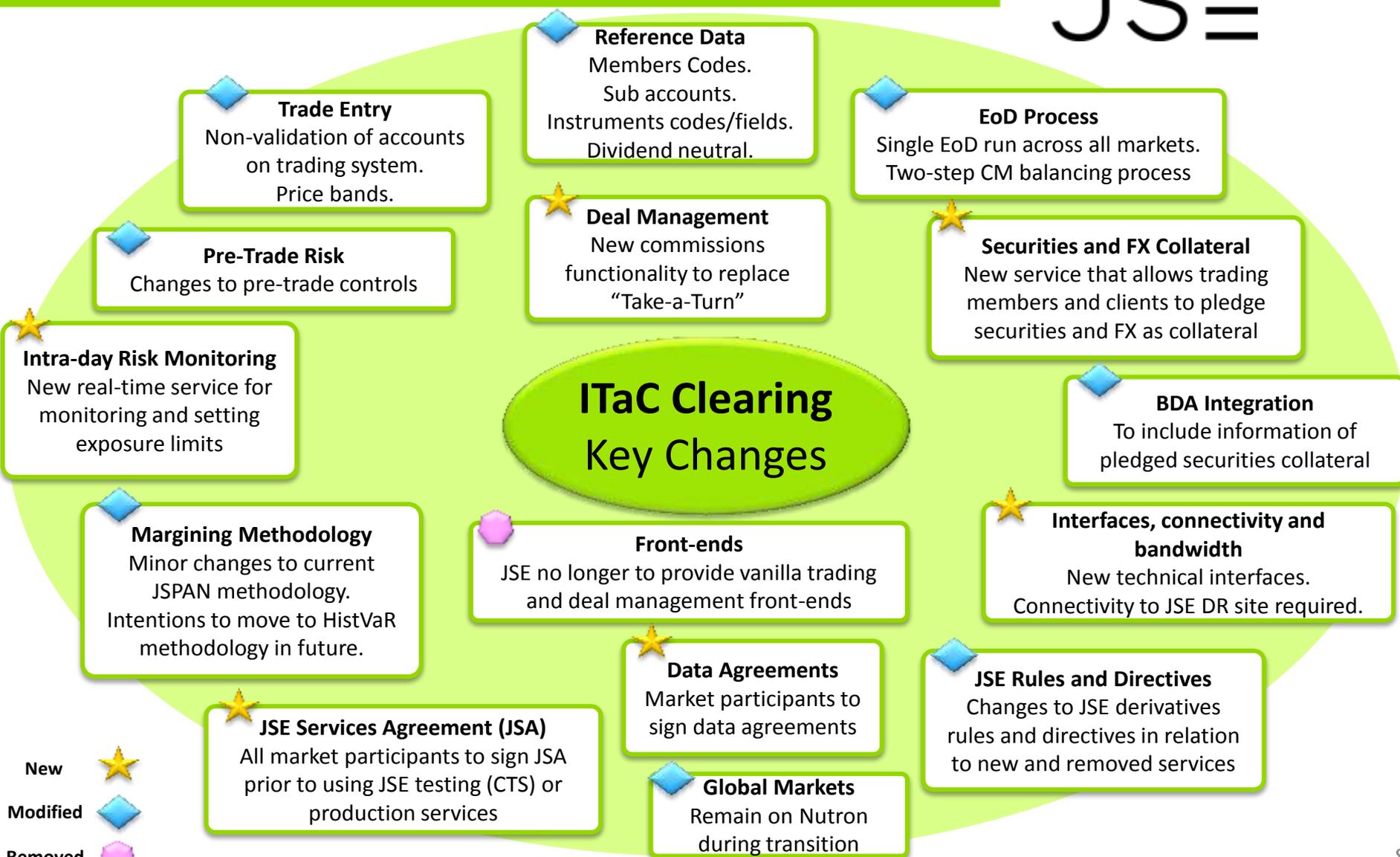
- Software provider showcase day on 6 October 2016
- Conformance of deal management and clearing software solutions
- Clearing Member UAT



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ITaC Clearing Changes

Highlighting key changes and new services



New



Modified

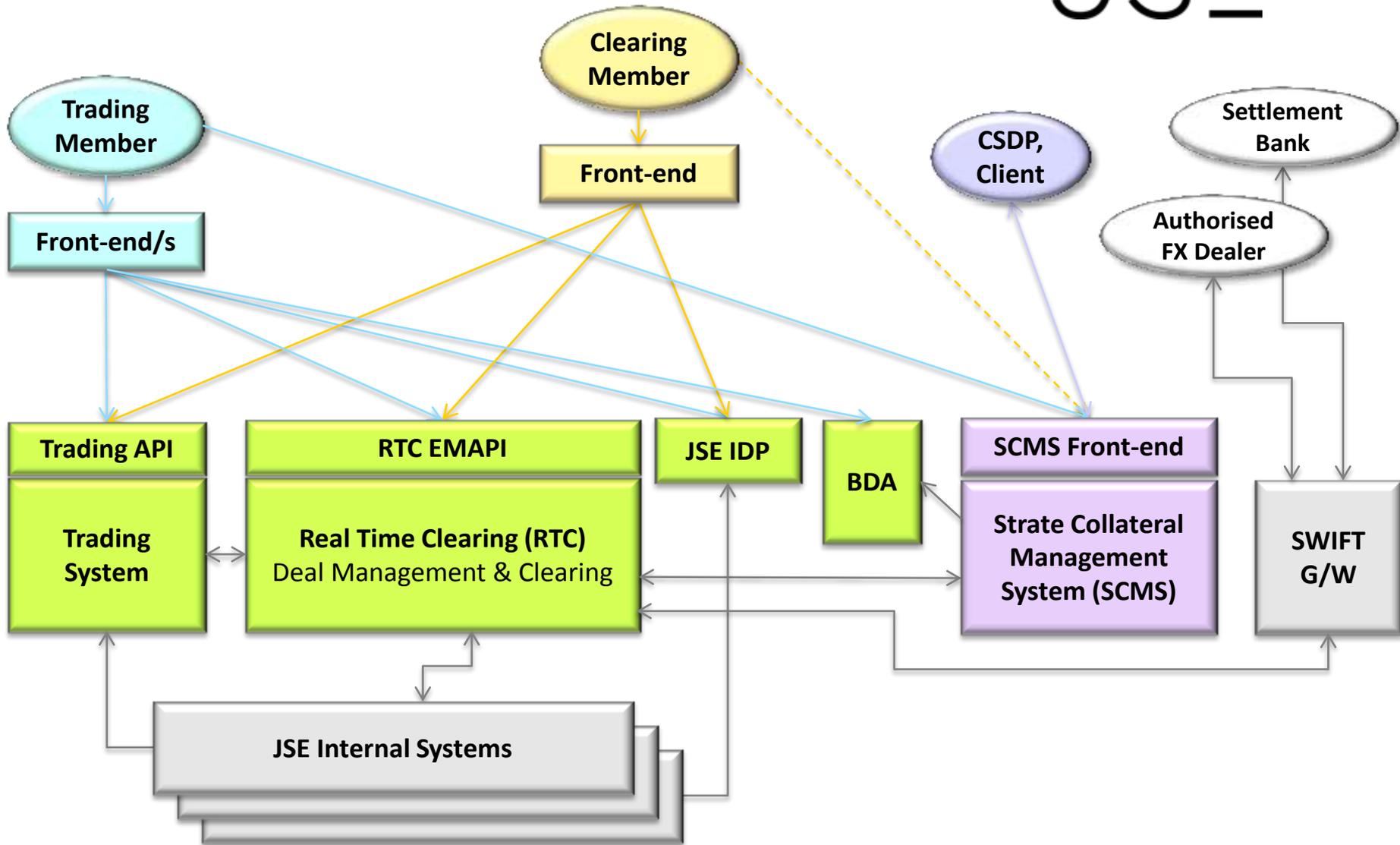


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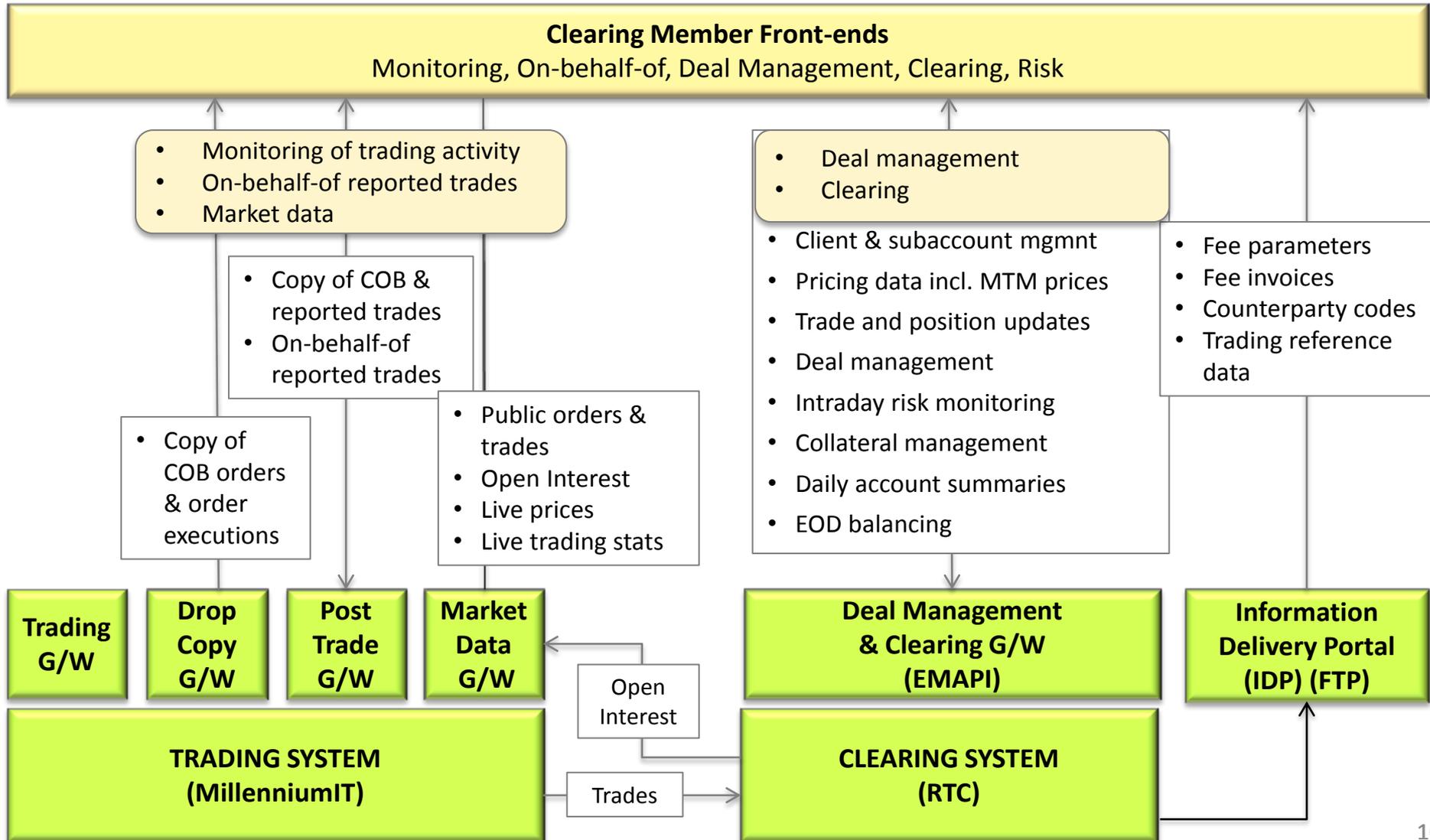
ITaC Systems

Post-trade perspective



ITaC Systems Interfaces

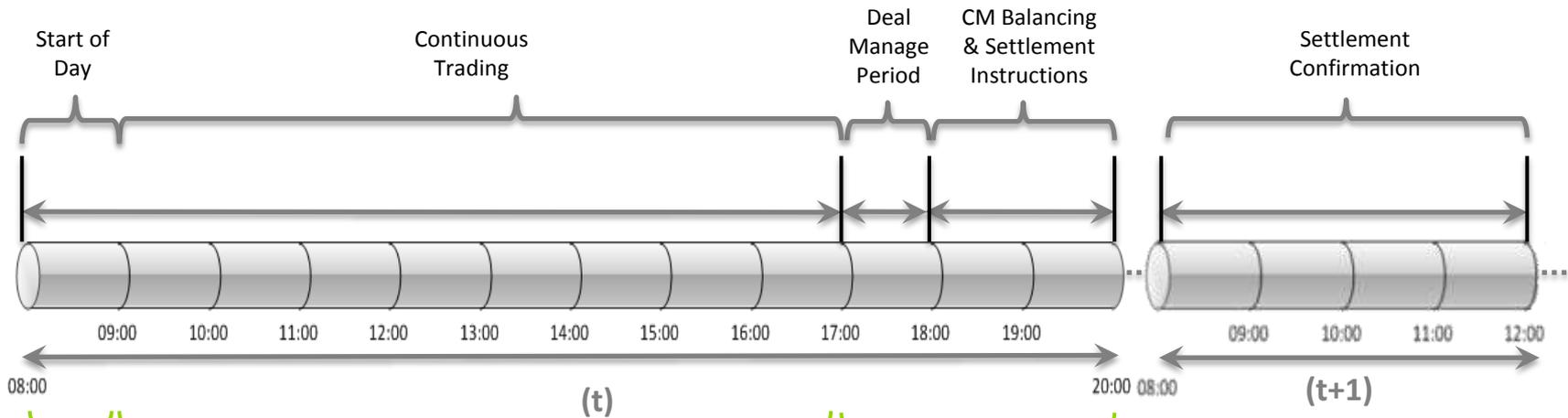
Post-trade perspective



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Daily Clearing Lifecycle

Timeline of a typical day



Start of Day (SoD)

- Data Downloads:
 - Instruments
 - MtM Prices (T-1)
 - Public Member Codes
 - Public Branch Codes
 - Fee Parameters

Intra-Day

- Trade, Deal, Position updates
- Deal Management & Commissions
- Collateral – Intra-day Rebalancing
- Intraday Risk Monitoring
- Reference and Pricing Data
- Next-day Trade Reporting
- Publishing of rates
- Early valuations

End of Day (EoD)

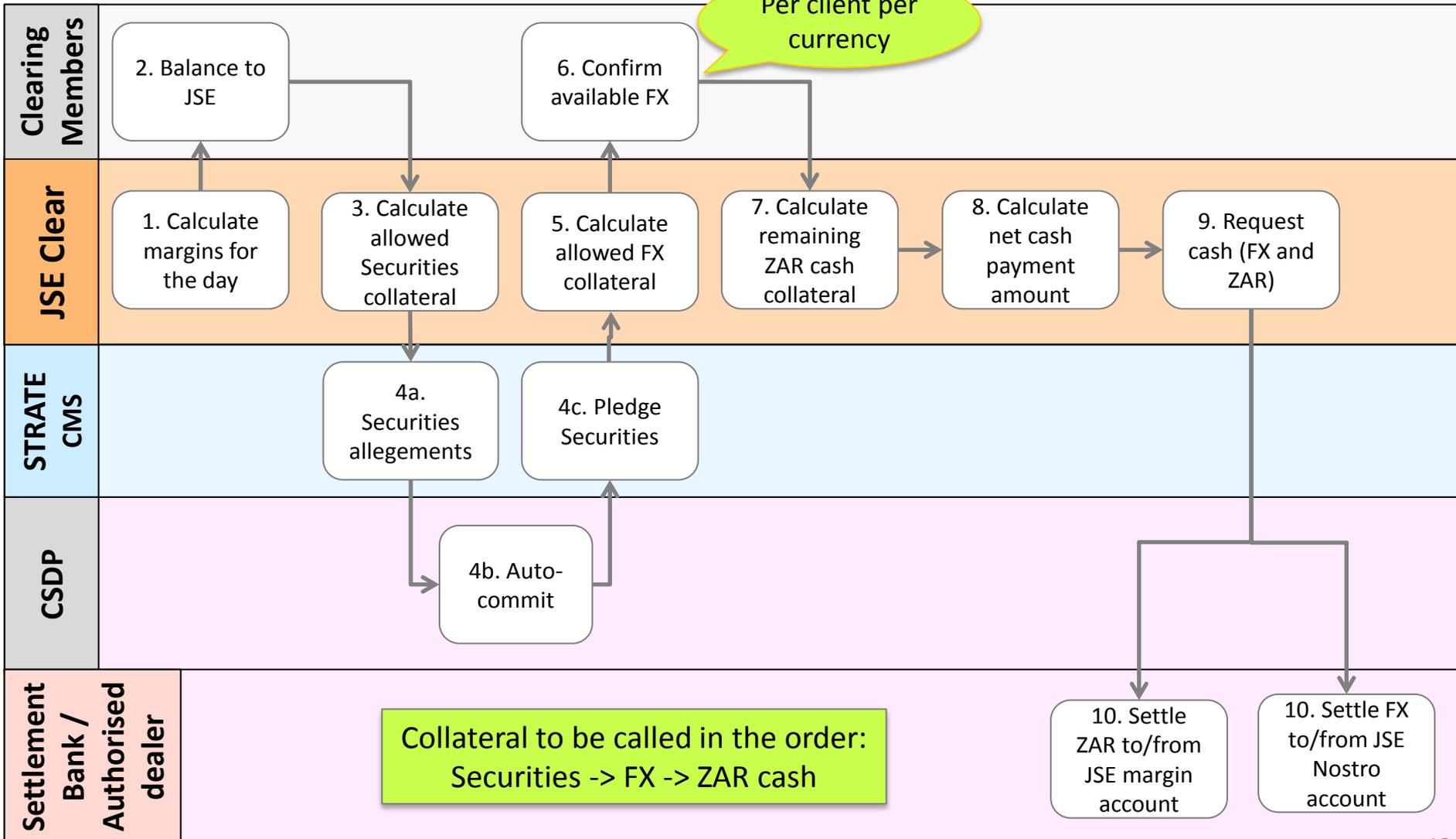
- Final Deal Management & Commission Entry
- Contract Expiries and Allocations (Futures and Options)
- Margin Calculations
- Clearing Member Balancing 1 & 2
- Collateral calls
- Billing
- Payment Instructions
- Default Management
- Position Transfers
- Corporate Actions
- Downloads in prep for next day

Next Day

- SWIFT Payment Confirmations

Daily Clearing Lifecycle

End of Day



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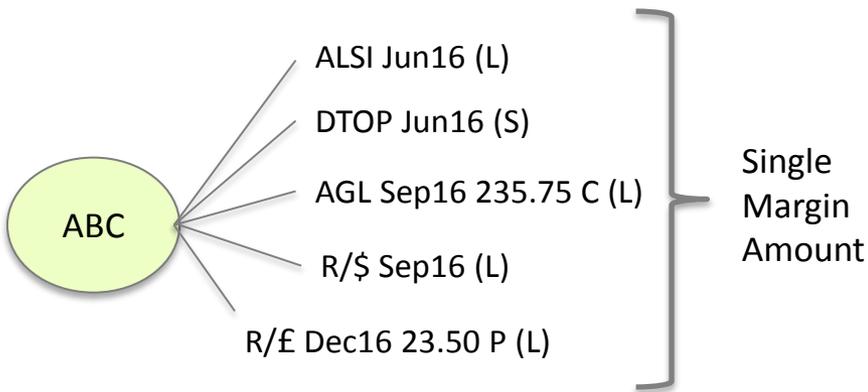
EOD Balancing

Single EOD run across all derivative markets

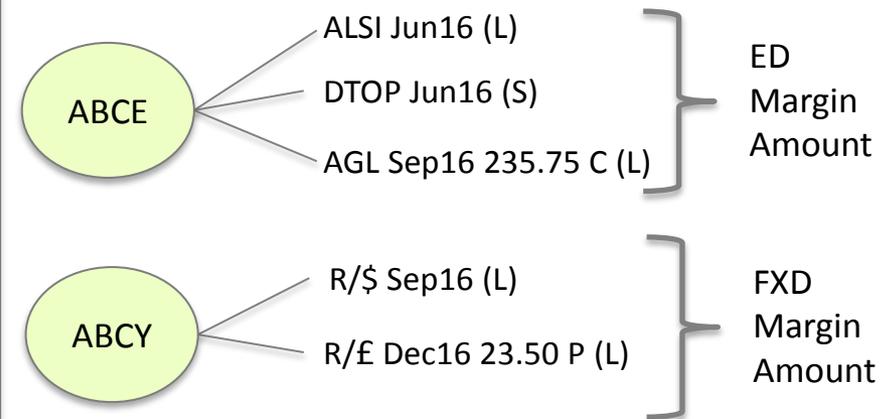


Single margin figure per account across markets

ITaC



Current



A margin breakdown report will be available to facilitate reconciliations



EOD timings to be revised as a result of

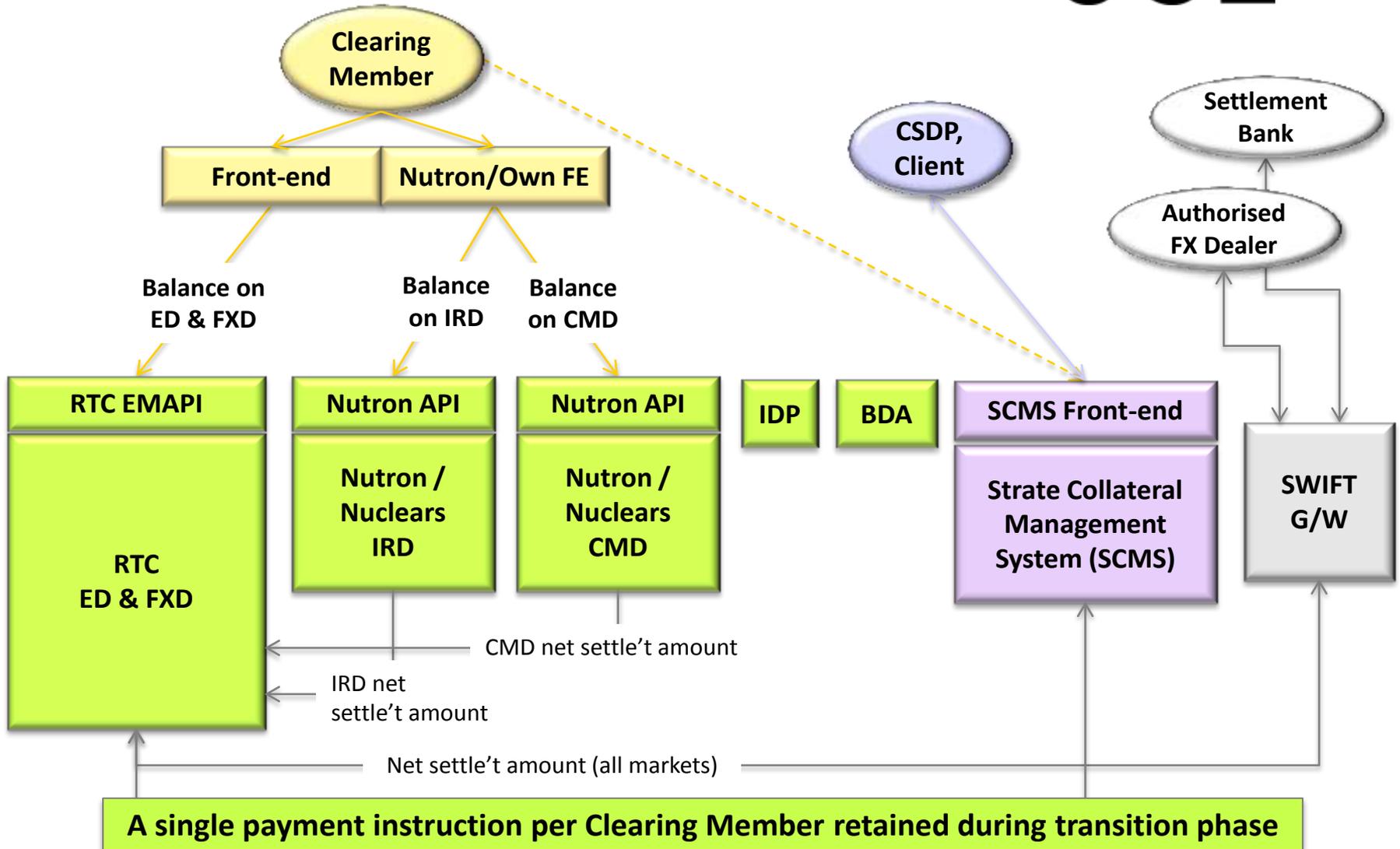
- Single EOD run
- Introduction of collateral processes



Clearing members to consider any other implications to their business and operations of the Consolidation of markets and single EOD run

EOD Balancing

Transition phase



EOD Balancing

Data inputs for replication of margins and fees



All data required to replicate margins and fees will be available to TMs and CMs

Via EMAPI

- Deals download
- Instrument reference data
- J-SPAN margin parameters
 - IMR, CSMR, SSMR, VSMR, CSG, SSG
- Settlement prices
- Rates
- Risk arrays
- Parameters for Liquidation Period & Large Position add-ons

Via Information Delivery Portal (IDP)

- Fee parameters and structures

NB. Public reference and pricing data (including MTM prices, volatility surfaces and curves) will be provided via the RTC EMAPI interface.

Participants using this data for operational purposes will need to sign JSE Data Agreements stipulating for what purpose the data is allowed/not allowed to be used.

Checklist - Daily lifecycle & EOD balancing

Have we covered everything?

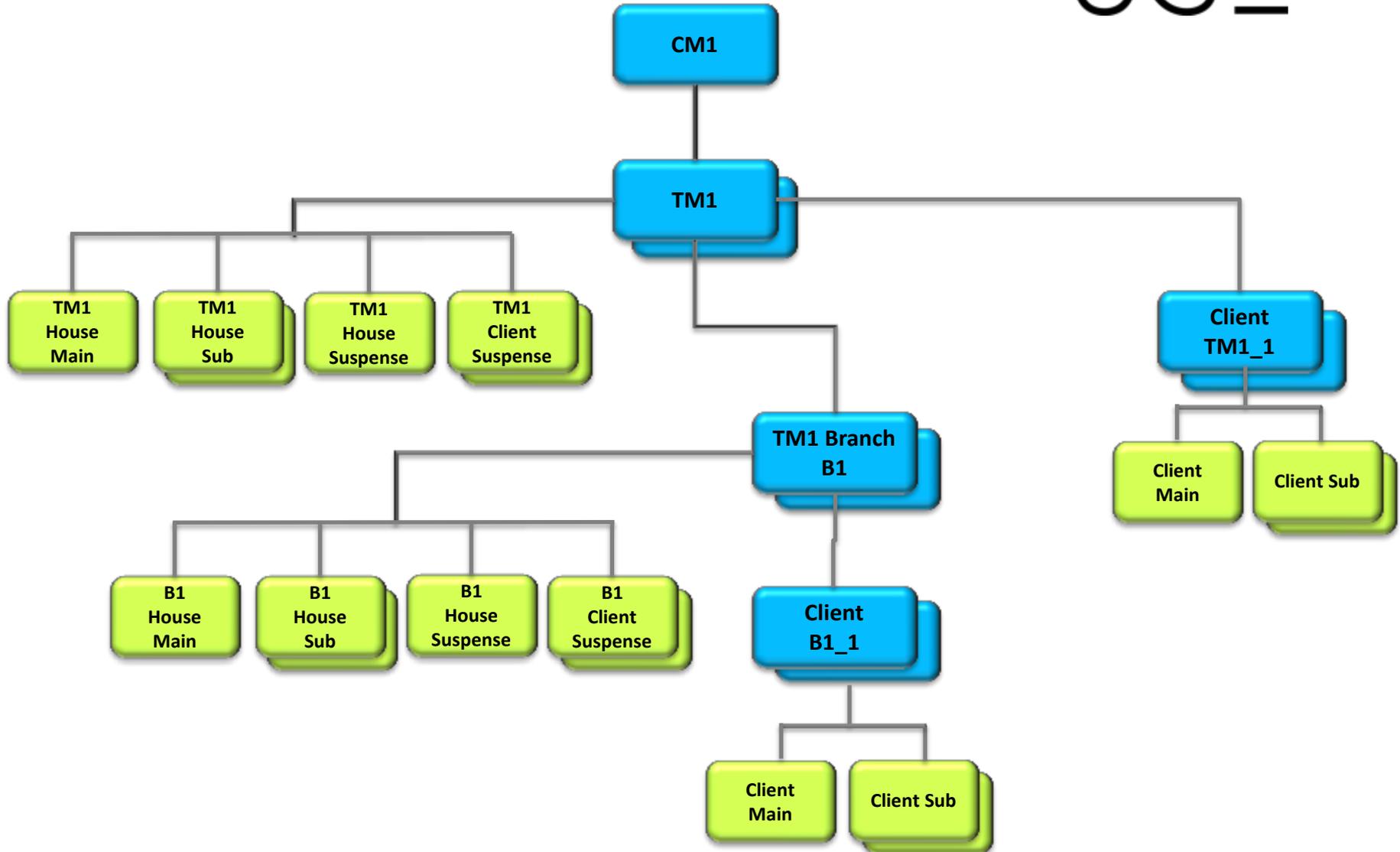


The flows from normal business day	Trades	✓ Sub account transfers
		✓ Reference numbers
		✓ Close outs
		✓ On behalf of functionality
		✓ Give up trades
		✓ Report only trades
		✓ Next day trades
		✓ Deal Management
		✓ Position Management
	Settlement (EOD)	✓ Margin calculations
		✓ Mark to market calculations
		✓ Fee calculations
		✓ Broker Commissions
		✓ Interest calculations
		✓ Dividends
		✓ Additional Margins
		✓ Safex Display Data (APD)
		✓ Downloading deals & ECFD deals
		✓ Rates

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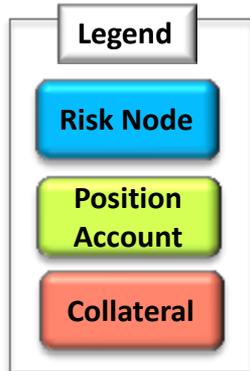
Entity and Account Structure

Position account view

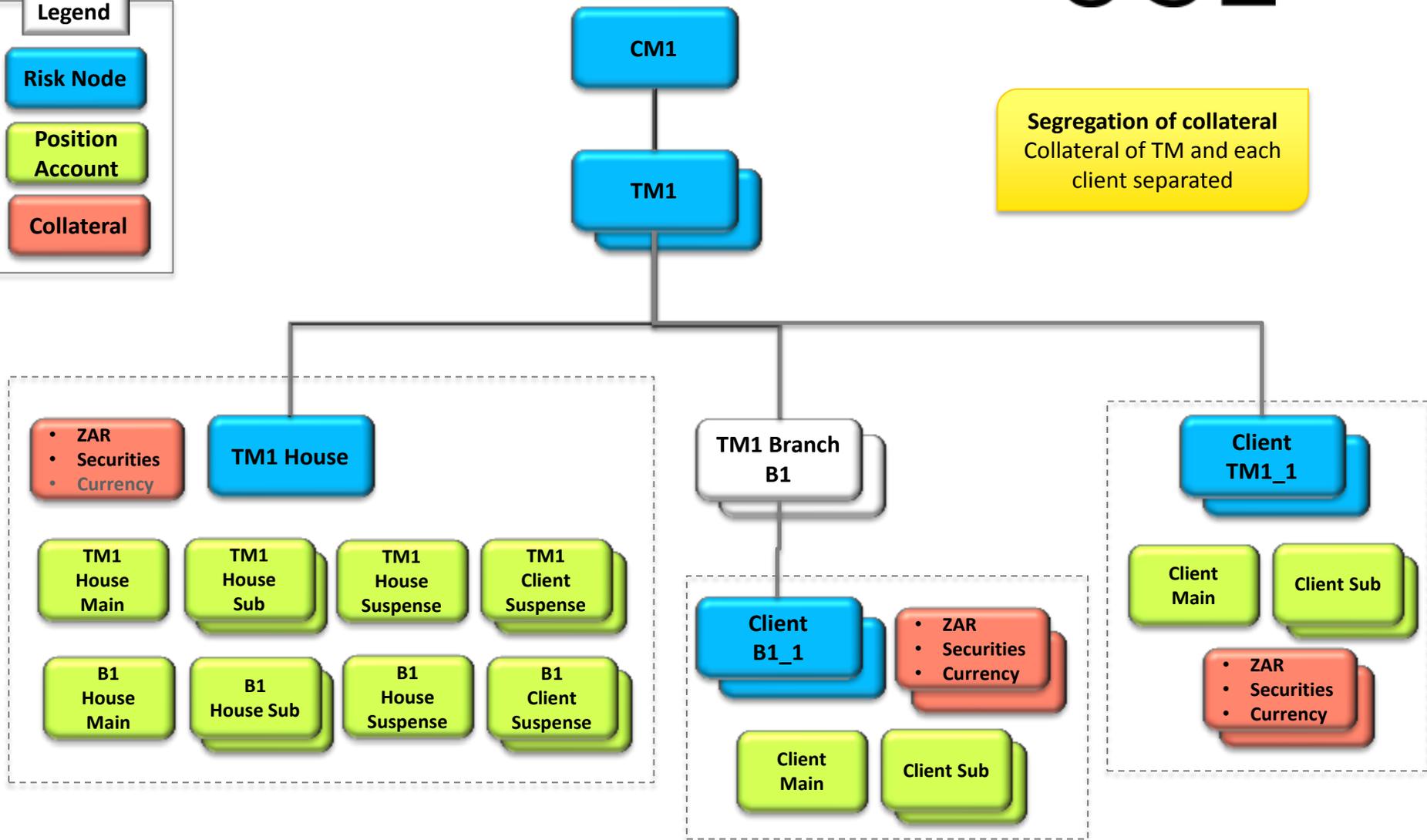


Entity and Account Structure

Risk & Collateral View

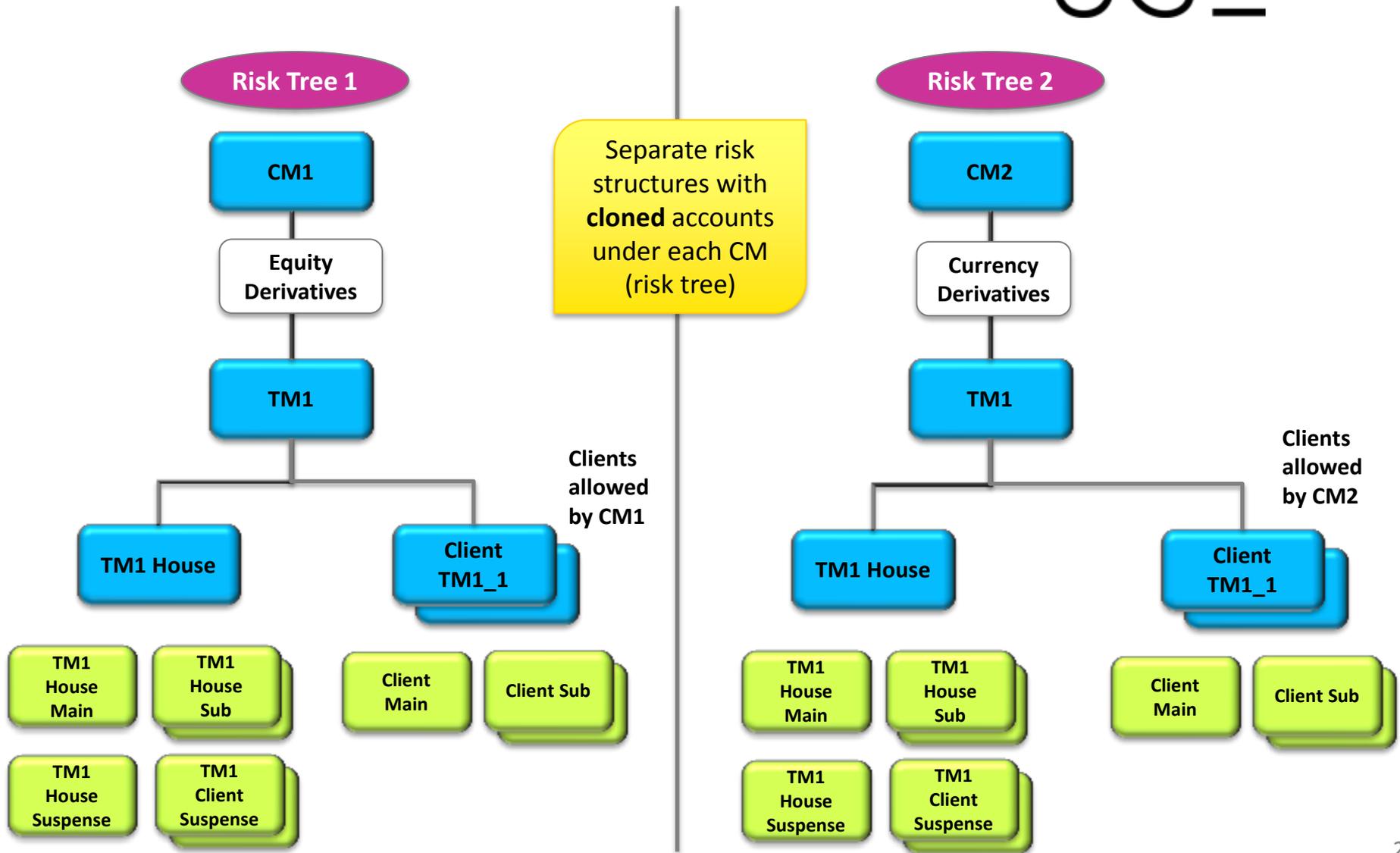


Segregation of collateral
Collateral of TM and each client separated



Entity and Account Structure

Clearing different markets through different CMs



Entity and Account Structure

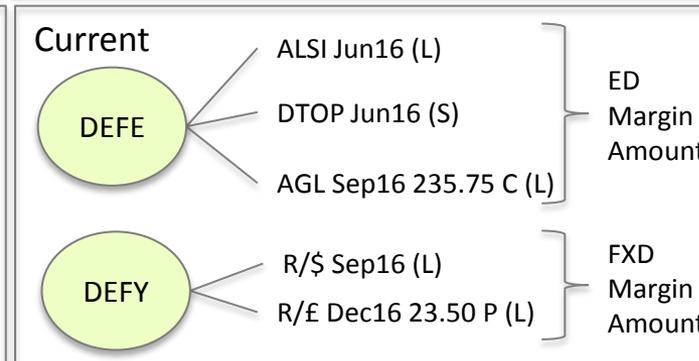
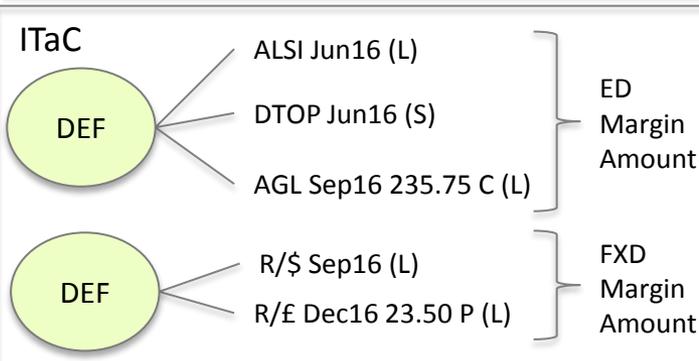
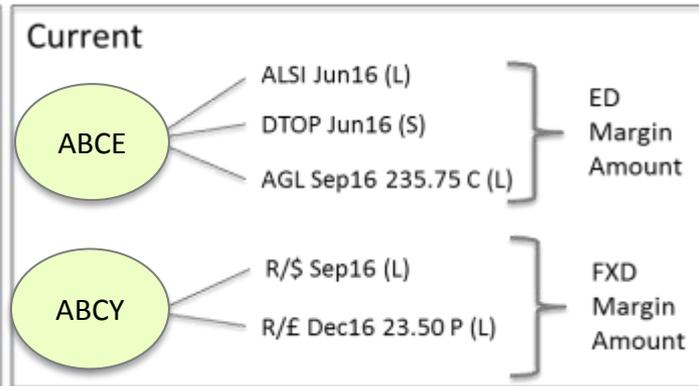
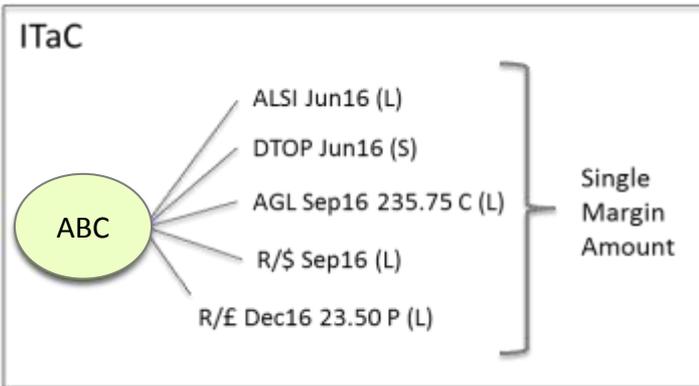
Consolidation of markets & Trading Member codes



Firm	Market	CM	TM Code (ITaC)	Current TM code (Nutron/Nuclears)
ABC Securities	ED	CM1	ABC	ABCE
ABC Securities	FXD	CM1	ABC	ABCY
DEF Securities	ED	CM2	DEF	DEFE
DEF Securities	FXD	CM3	DEF	DEFY

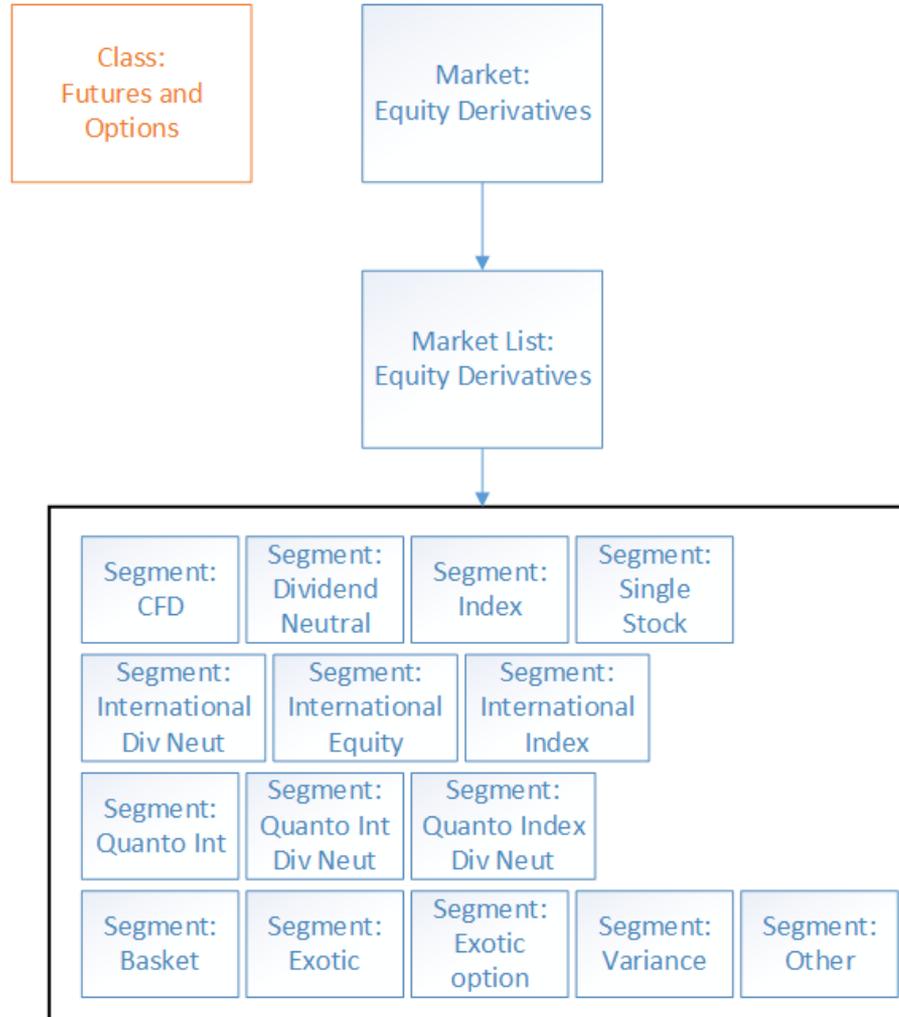
TM 'ABC' clears through one CM

TM 'DEF' clears through two different CMs



Instrument

Equity derivatives (cont.)



Instrument

Equity derivatives



Current: Nuclear Reference Data

Instrument Type Code	Contract Name	Contract Code	Instrument Description	Physical	Expiry Date	Nominal
ECFD	16 Mar 17 AGLC	AGLC	CFD on AGL	No	2017/03/16	1
SSF	15 Dec 16 AGLQ	AGLQ	Anglo American PLC	Yes	2016/12/15	100
SSF	15 Dec 16 AGLS	AGLS	Anglo American PLC Cash Settled	No	2016/12/15	100
DIVNEUT	15 Dec 16 AGLN	AGLN	Anglo American PLC Divdend Neutral	No	2016/12/15	100
SSF	16 Dec 16 AXLQ	AXLQ	Anglo American PLC Rights Issue	Yes	2016/12/15	103
CANDO	23 Sep 16 AGLX	AGLX	Can-Do Single SSF Anglo American Plc	No	2016/09/23	100

Inst ID	Instrument Type (Segment)	Instrument Class	Contract Code	CSG	Instrument Description	Sett. Type	Expiry Date	Cont. Size
1001506	CFD	CFD	16MAR17 AGL CSH CFD	AGLC	CFD on AGL	CASH	2017/03/16	1
1001507	SINGLE STOCK	FUTURE	15DEC16 AGL PHY	AGLQ	Anglo American PLC Fut...	PHYSICAL	2016/12/15	100
1001508	SINGLE STOCK	OPTION	15DEC16 AGL PHY 158.25C	AGLS	Anglo American PLC Opt...	PHYSICAL	2016/12/15	100
1001509	DIVIDEND NEUTRAL	FUTURE	15DEC16 AGL CSH	AGLN	Anglo American PLC Divi...	CASH	2016/12/15	100
1001510	SINGLE STOCK	FUTURE	15DEC16 AGL PHY CA1	AXLQ	Anglo American PLC Righ...	PHYSICAL	2016/12/15	103
1001511	SINGLE STOCK	FUTURE	23SEP16 AGL CSH ANY	AGLX	Anglo American PLC Any...	CASH	2016/09/23	100

Future: RTC Reference Data

All necessary data will be available on the new RTC instrument reference data message

Instrument

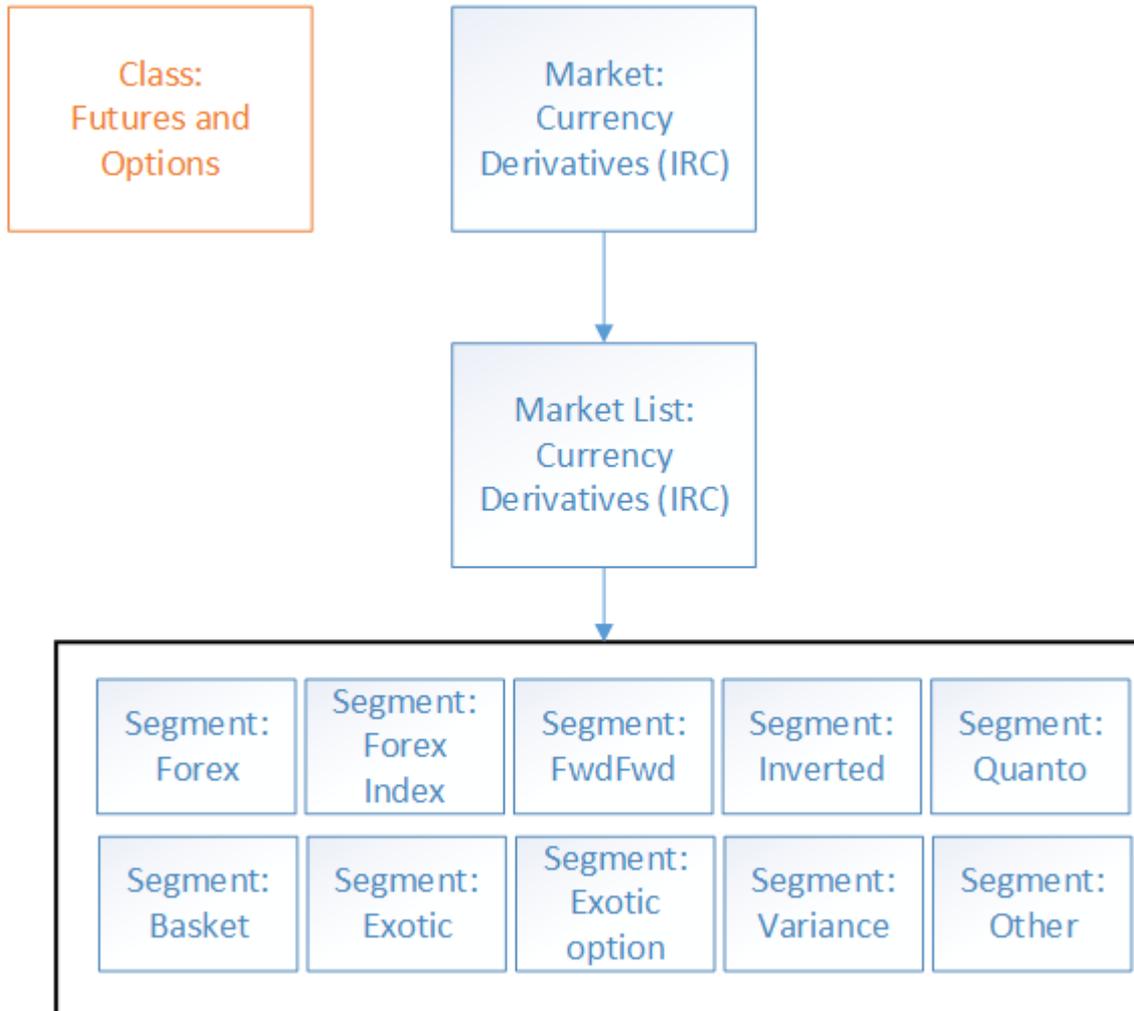
Equity derivatives (cont.)



- Additional fields (not reflected on previous slide) that will be available on the new RTC instrument reference data message:
 - Contract Size Type: e.g. Base, Mini, Maxi
 - Anyday: e.g. Yes, No
 - Underlying Alpha Code: e.g. AGL, MTN, etc.
 - Strike: e.g. 158.25
 - Call/Put: e.g. Call, Put
- The current 'Dividend Future' instrument will not be required in the new ITaC solution
 - Positions will be held directly in the Dividend Neutral instrument which will have its own valuation
 - There will be no positions on Dividend Future instruments
 - Dividend Futures will not be part of the new instrument reference data set

Instrument

Currency derivatives



Instrument

Currency derivatives (cont.)



Current: Nuclears Reference Data

Instrument Type Code	Contract Name	Contract Code	Instrument Description	Physical	Expiry Date	Nominal
FOREX	13 Mar 17 \$ / R	ZAUS	USD	No	2017/03/13	1 000
FOREX	13 Mar 17 \$ / R MAXI	ZAUM	USD	No	2017/03/13	100 000
ANYDAY	12 Jul 17 \$ / R	DAUS	ANY DAY EXPIRY DAUS USD	No	2017/07/12	1 000

Inst ID	Instrument Type (Segment)	Instrument Class	Contract Code	CSG	Instrument Description	Sett. Type	Expiry Date	Cont. Size
1001506	FOREX	FUTURE	13 MAR 17 \$ / R	ZAUS	USD	CASH	2017/03/13	1000
1001507	FOREX	FUTURE	13 MAR 17 \$ / R MAXI	ZAUM	USD	CASH	2017/03/13	100 000
1001508	FOREX	FUTURE	13 MAR 17 \$ / R	DAUS	ANY DAY EXPIRY DAUS USD	CASH	2017/07/12	1000

Future: RTC Reference Data

Additional fields that will be available on the new RTC instrument reference data message:

- Contract Size Type: e.g. Base, Mini, Maxi
- Anyday: e.g. Yes, No
- Underlying Alpha Code: e.g. AGL, MTN, etc.
- Strike: e.g. 158.25
- Call/Put: e.g. Call, Put

Checklist - Reference Data

Have we covered everything?

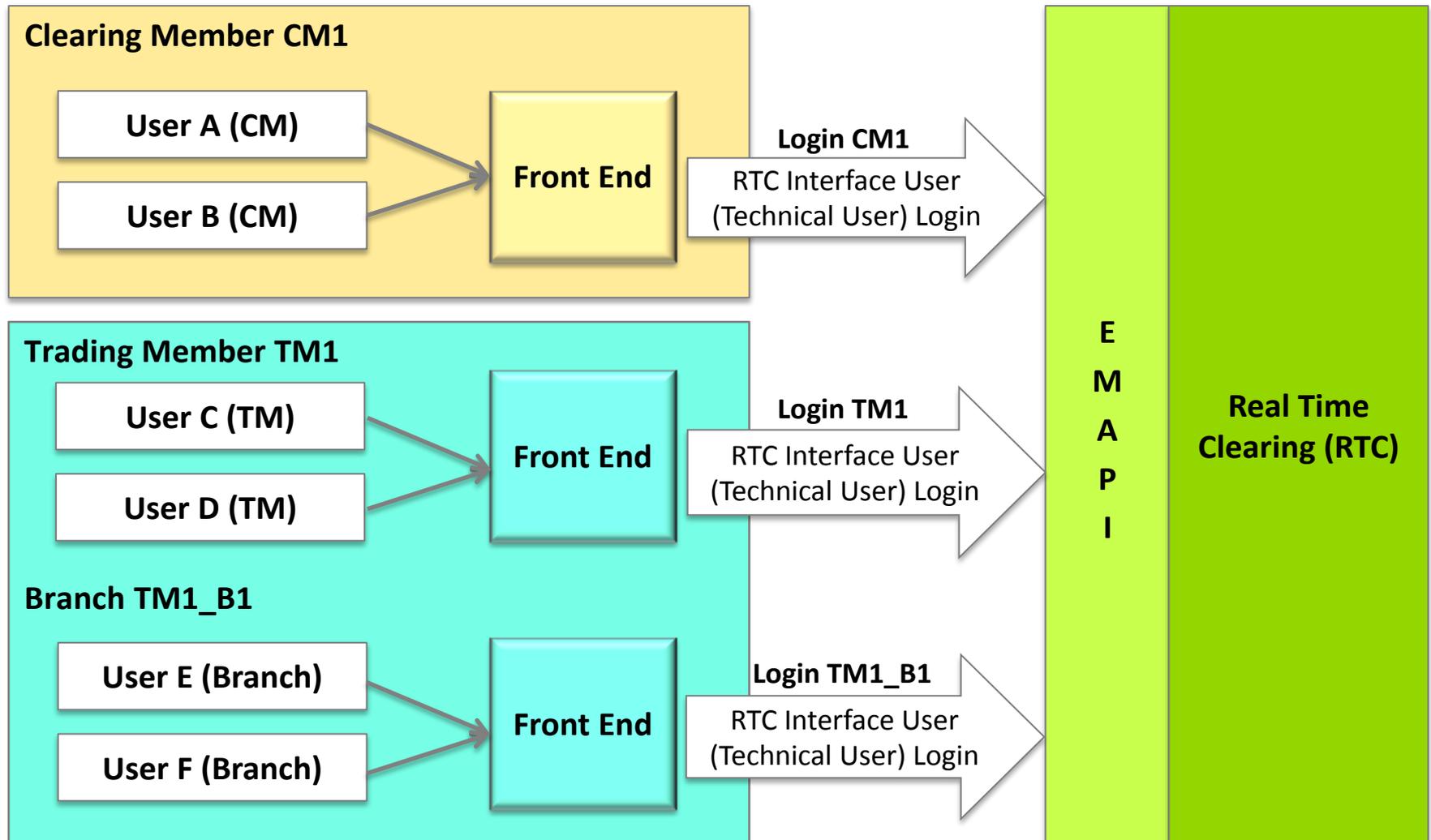


Reference Data	Instrument	✓ Asset Types
		✓ Contract Specifications
		✓ Listed Contracts
		✓ Margin Parameters
		✓ Settlement Margins
		✓ Skews
		✓ Skew Pricing Policies
		✓ Cando margin rules
		✓ Closing Prices
		✓ Journal Transactions
	Entity	✓ Members
		✓ Client accounts
		✓ Member Sub accounts
		✓ Client sub accounts

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Firm & User Access and 'On-behalf-of'

Deal Management & Clearing system



Firm & User Access and 'On-behalf-of'

Deal Management & Clearing system



- CMs will be able to perform the following deal and position management actions on RTC on-behalf-of TMs and direct clients
 - Allocation
 - Assign
 - Tripartite allocation
 - Accumulation
 - Allocation error correction
 - Principal correction
 - Deal sub-account modification
 - Position sub-account modification
- Above actions performed using the same RTC Interface User channel as for all other CM functions on RTC

Firm & User Access and 'On-behalf-of'

Trading System



- CMs will be able to perform the following reported trade functions on the Trading System on-behalf-of their TMs and direct clients
 - Book reported trades (give-ups on T and T+1)
 - Accept reported trades
 - Cancel reported trades

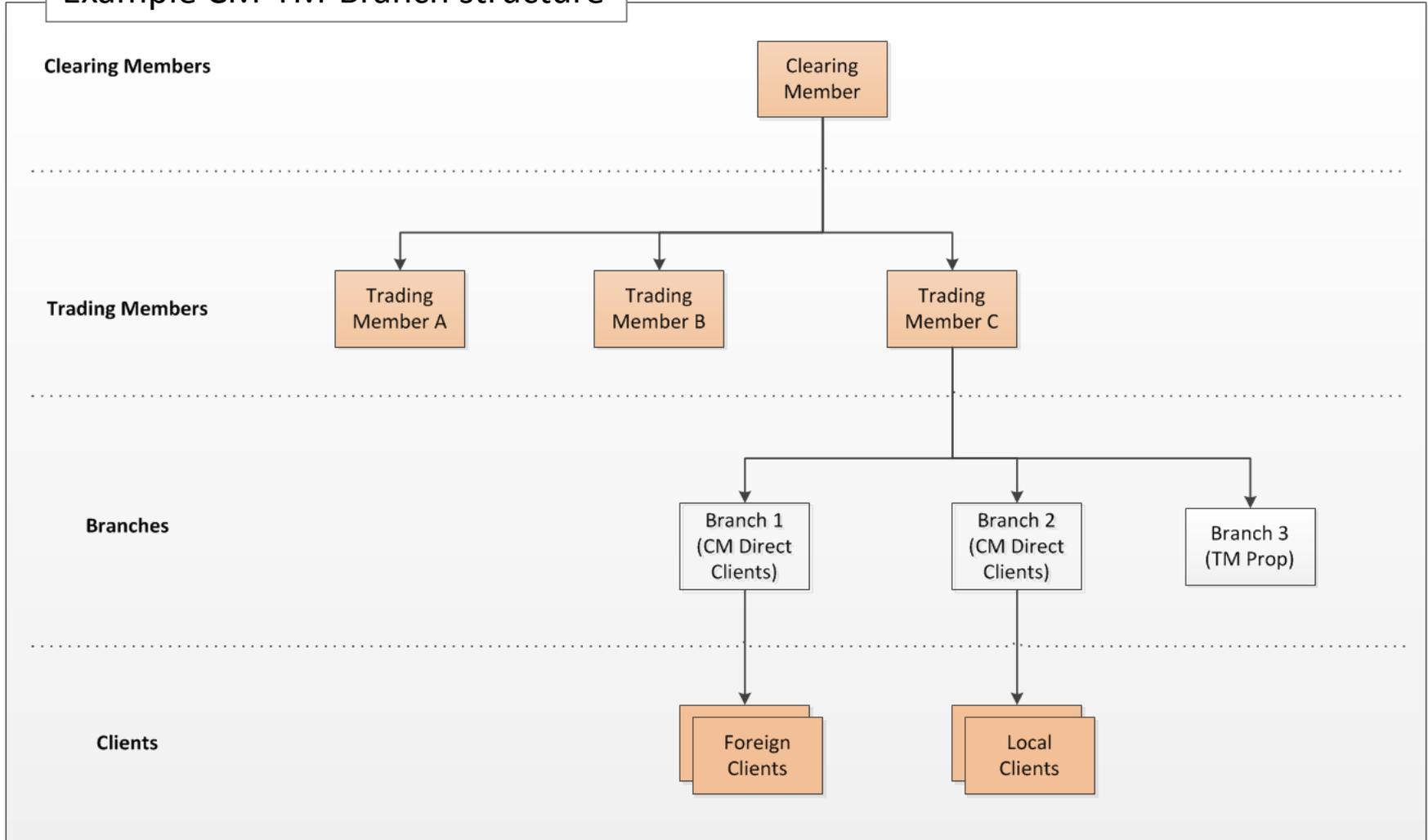
Note: This is over and above the access CMs require for drop copy and market data on the Trading System

Firm & User Access and 'On-behalf-of'

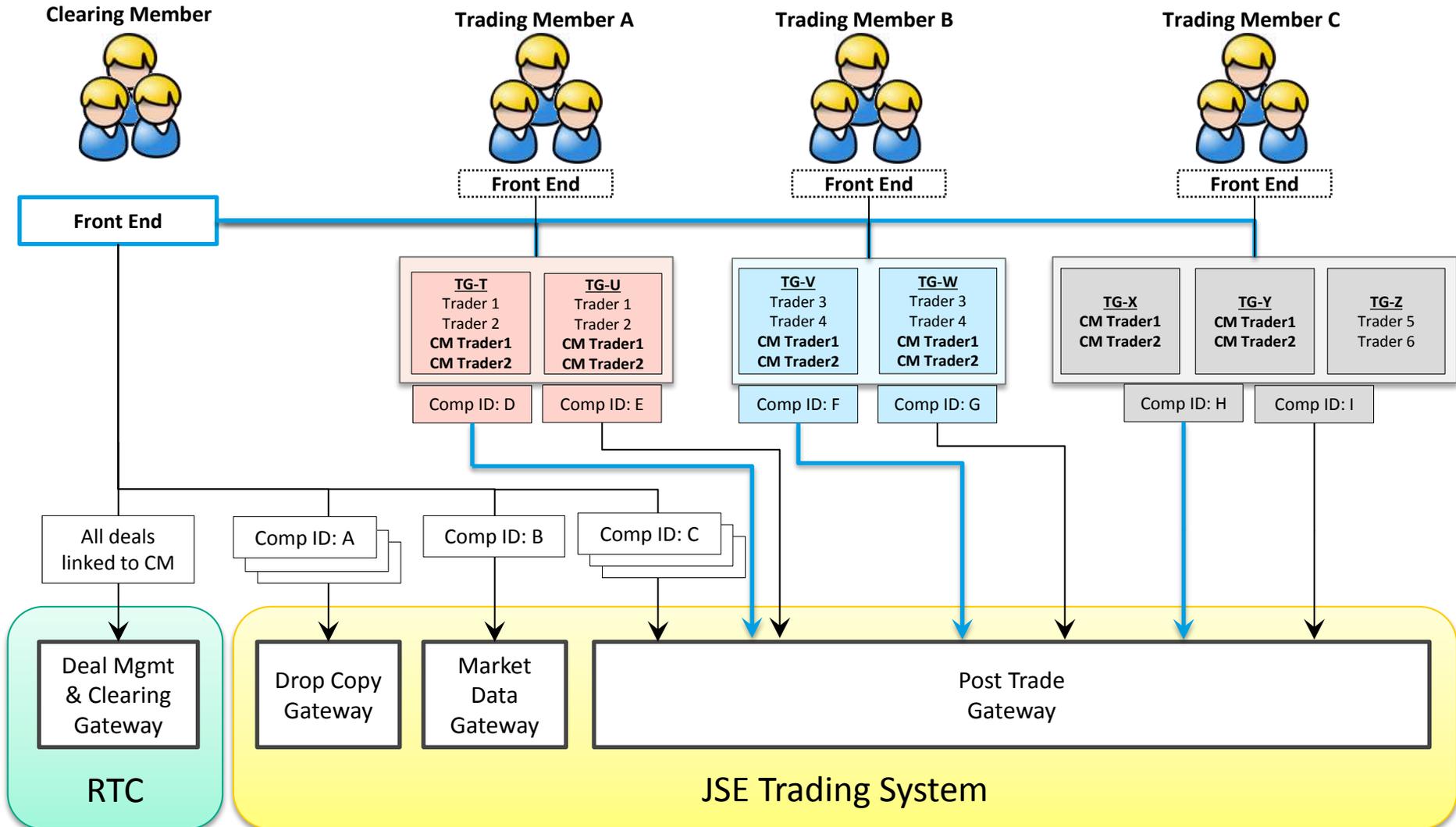
Trading System



Example CM-TM-Branch structure



Firm & User Access and 'On-behalf-of' Trading System



— Trading system interfacing for performing on-behalf-of reported trades

Firm & User Access and 'On-behalf-of'

Trading System



- TMs will request from the JSE, a CompID for their CM as part of the normal enablement process OR allow the CM to request for a CompID via email and copying the compliance officer or head of trading from the TM firm.
- The CompID only links to the post trade gateway and thus the CM can only perform off-book trade activities and cannot place any on-book orders.
- Using the CompID, the CM establishes a single daily connection to the JSE Post Trade gateway – one CompID connection per TM
- All flows i.e. off-book message requests and acknowledgements will go through this connection.
- The trading system identifies who captured the off-book trade message based on the CompID.
- Off-book messages submitted through the CompID include fields:
 - TraderID – identifies the particular trader/dealer initiating the message
 - TraderGroup – identifies the trader group (i.e. branch) to which the trader/dealer belongs
 - Account – the branch or client account (as per RTC) to which the position is to be allocated
- CMs will require separate Comp IDs for Drop Copy, Market Data and Post Trade gateways.
- TMs will have their own CompIDs for Post Trade and Native gateway (On and Off-book trade activity).

Checklist – Firm and User Access & ‘On-behalf-of’

Have we covered everything?



Access	Clearing Member
	Trading Member
	DMA
Integration to the JSE	Reference Data
	Intra day & EOD
	Integration to the trading system for Clearing Members

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User Readiness

Market Readiness Programme Overview



The JSE would like to initiate a **formal market readiness programme** to ensure that all Clearing Members are correctly positioned for the successful implementation of ITaC Projects 1b&c

The Market Readiness Programme aims to:

- Define the **actions** that will facilitate a successful project implementation – required to be completed per Clearing Member
- Define **appropriate measures** for each of the actions identified
- Establish a **governance** framework to drive the achievement of the defined actions and measurements
- Define a **feedback and reporting process** via which progress against the agreed actions will be tracked (and in instances of non-performance, escalated)

User Readiness

Programme Approach



1. Define the **list of actions / activities** that need to be actioned by the market to enable them to be ready for the transition to ITaC systems (*Business changes vs. Technical changes*)
2. For each action, **define a series of measurement criteria and milestones** against which performance can be gauged
3. Drive the **vetting of the activities and measurement framework** to ensure that:
 - The list of activities is all inclusive; and
 - To confirm that the measurement framework is reasonable and achievable.
4. Develop a **governance and reporting framework** to drive execution of the programme
5. Secure **buy-in for the strategy** from appropriately authorised stakeholders within the market – including establishment of the “**Primary Officer**” Vs. “**Responsible Officer**” roles

A hand-drawn diagram of an action plan table. The title 'ACTION PLAN' is written in blue at the top. Below it, the table has four columns labeled 'WHO', 'WHAT', 'WHEN', and 'HOW' in red. The table is drawn with green lines and has two red dots at the top corners.

ACTION PLAN			
WHO	WHAT	WHEN	HOW

User Readiness

Reporting Model



- **Reporting Template**

- a) The JSE will create a reporting template that will be populated by the identified *Responsible Officer* on a monthly basis up until go-live of the project
- b) The *Responsible Officer* will be required to provide feedback within 2 weeks of having received the template
- c) The JSE will compile the results and will publish a formal report on a monthly basis

- **Feedback**

- a) The JSE will create **a committee that will meet every month until go-live**, consisting of the elected *Primary Officers* and *Responsible Officers* from each Clearing Member. This committee may also feature representation from the regulators
- b) The *Primary Officers* and *Responsible Officers* will need to attend the committee meetings in order to:
 - i. Understand the progress being made by their peers in the market
 - ii. Understand in the progress being made by the JSE as it progresses towards the implementation date
 - iii. Share issues and constraints being faced in the execution of the various checklist activities

User Readiness

Post-Trade Customer Test Service (CTS)



- Post-Trade CTS was launched on 30 August
- This environment facilitates development and testing to the RTC EMAPI for deal management and clearing
- To gain access to the new RTC CTS environment
 - Complete and sign the **JSE Services Agreement (JSA)** including Post-trade services CTS Order Form
 - Complete **enablement order form**
 - Environment **IP address and port** information for the RTC CTS can be requested from the Client Services Centre (CSC)
 - As per JSA Schedule 2G, enablement forms will be processed within a **7 business day Service Level Guideline (SLG)**

For additional details clients can refer to Service Hotline 178/2016 published 30 Aug 2016

User Readiness

Clearing Member UAT



Details of the approach:

- We will not be doing parallel testing
- We will be doing scripted testing
- Business scenarios and test conditions will be created by JSE - workshopped with the members (with sign-off)
- UAT to start Q1 2017
- After each cycle members will have sign-off a test certificate
- Project Manager nominees
- Test Manager nominees

User Readiness

Agree topics for next session



- Next Clearing Member working group planned for 20 September

Questions

JS ≡

