# Integrated Trading and Clearing (ITaC) Working Group Session

24 August 2015



## Agenda



- ITaC User Readiness checkpoint
- Deal Management and Clearing
  - Functional summary & topics covered to date
  - Collateral Management including integration to Strate
    - JSE collateral management functionality recap
    - Strate collateral management
- Off Book Trade Reporting Model
  - Integration to Deal management

## **Proposed ITaC phases**

# JS≣

- The programme consists of 2 Projects
  - Project 1:
    - Phase 1a: Equity Market upgrade for trading only
      - Targeting Q3 2016 (dependent on T+3 implementation)
    - Phase 1b: Equity Derivatives Market
      - Targeting Q2/3 2017
    - Phase 1c: Currency Derivatives Market
      - Targeting 2 months after Phase 1b implementation
  - Project 2: Commodity Derivatives Market, Interest Rate Derivatives and Bonds Markets



## **User Readiness Checkpoint**



- 5 technical working groups held to-date
- Good attendance thus far
  - On average approx. 115 attendees on site
  - On average approx. 22 attendees via webinar
  - However, we're concerned this has not included representation from all clients
- Clients requested more detail in published invitation agenda items to assist them in confirming the correct audience
- Clients invited to contact us should they wish to have a one on one session with the JSE team
- All previous technical working group presentations can be found on the JSE website at the following link:
  - https://www.jse.co.za/services/post-trade-services/itac
- We urge clients to ensure the right level of participation

# 2015 Working Group (WG) Schedule

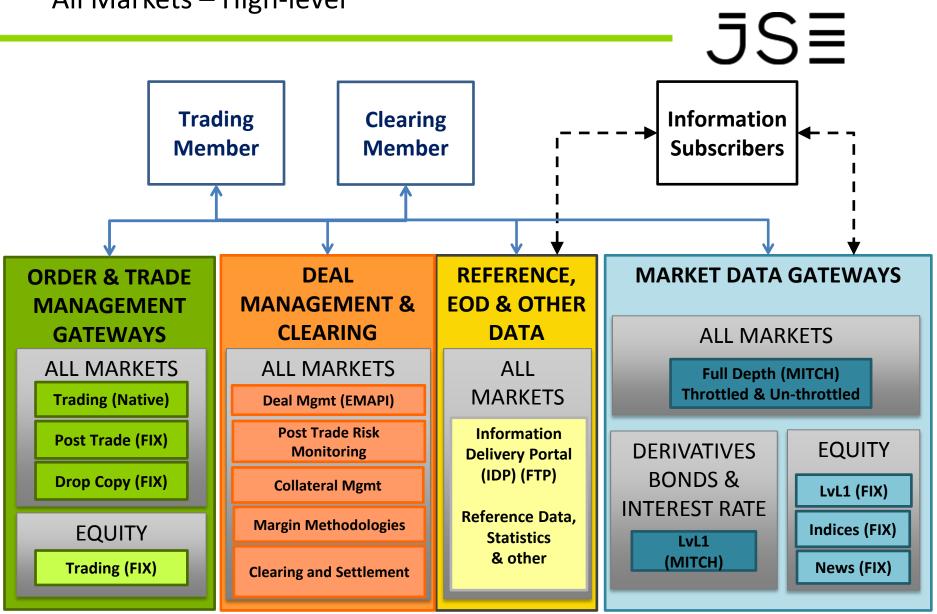
# JS≣

### Proposed 2015 WG Schedule

Date	Time	Status
Tues, 12 May 2015	11h00 – 13h00 SAST	Complete
Mon, 18 May 2015	10h00 – 12h00 SAST	Complete
Thurs, 28 May 2015	10h00 – 12h00 SAST	Combined into 3 June
Wed, 3 June 2015	10h00 – 12h00 SAST	Complete
Wed, 1 July 2015	10h00 – 12h00 SAST	Combine with/into 8 July
Wed, 8 July 2015	10h00 – 12h00 SAST	Complete
Wed, 15 July 2015	10h00 – 12h00 SAST	Complete
Wed, 5 Aug 2015	10h00 – 12h00 SAST	Combine with/into 24 Aug
Mon, 24 Aug 2015	11h00 – 13h00 SAST	In progress
Mon, 21 Sept 2015	10h00 – 12h00 SAST	
Mon, 19 Oct 2015	10h00 – 12h00 SAST	Eco-mobility festival TBC potential use another venue
Wed, 18 Nov 2015	10h00 – 12h00 SAST	

# **Trading, Clearing and Information Systems**

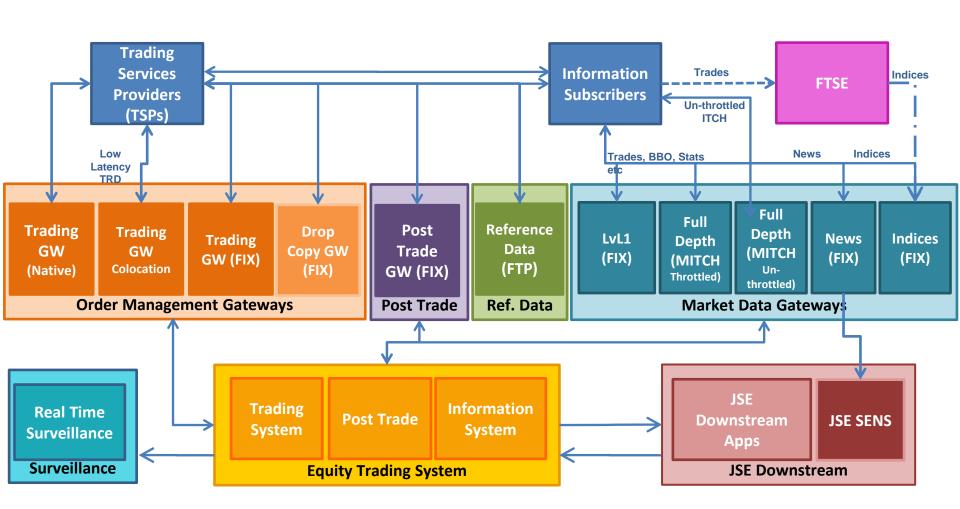
All Markets – High-level



## **Trading and Information System**

**Current Equity Market** 

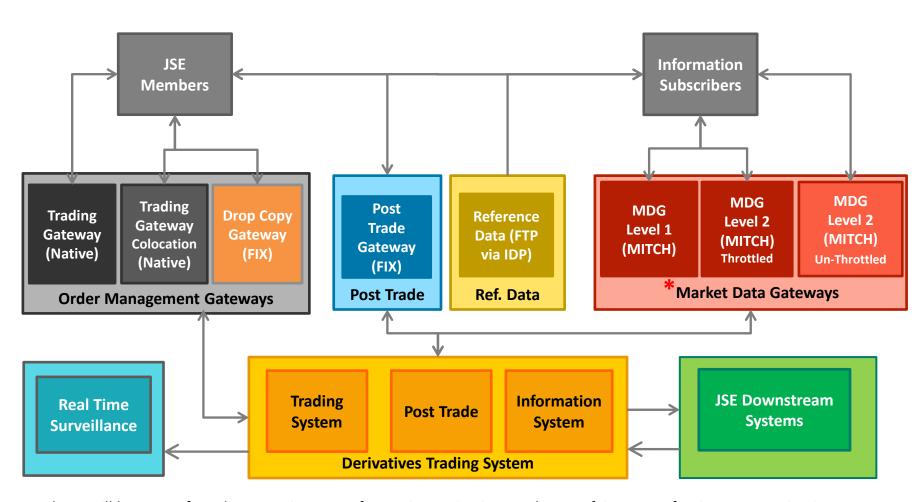




## **Trading and Information Systems**

**High Level Proposed Derivatives Solution** 

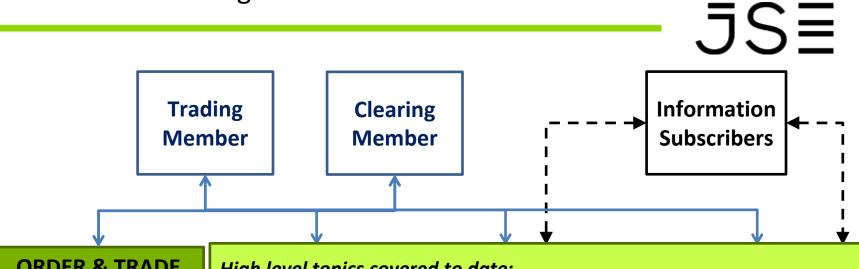




- There will be a set of Market Data Gateways for Equity Derivatives and a set of Gateways for Currency Derivatives
- Additional market data gateways will be introduced at a later stage for Commodity Derivatives.
- Interest Rate market data will be disseminated via the same gateways as Currency Derivatives

## **Trading, Clearing and Information Systems**

All Markets - High-level



# ORDER & TRADE MANAGEMENT GATEWAYS

**ALL MARKETS** 

**Trading (Native)** 

Post Trade (FIX)

**Drop Copy (FIX)** 

**EQUITY** 

**Trading (FIX)** 

#### High level topics covered to date:

- ITAC timeline principles
- Project Scope for Project 1a and 1b
- High Level Trading Overview
- High-level trading daily lifecycle
- Trading Frontend decision
- Important considerations for JSE Services agreement (JSA), sharing infrastructure and network service providers
- High-level functions and messages of the trading gateways
- Trading Firm Structure
- Trading Drop Copy functionality
- Entity and account structure
- User access and enablement

## **Trading, Clearing and Information Systems**

All Markets – High-level



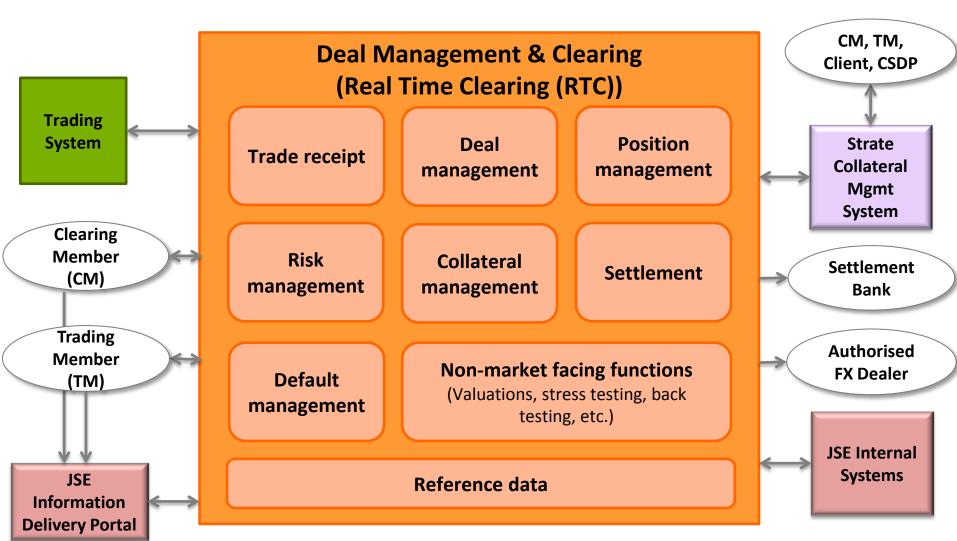
# Agenda



- ITaC User Readiness checkpoint
- Deal Management and Clearing
  - Functional summary & topics covered to date
  - Collateral Management including integration to Strate
    - JSE collateral management functionality recap
    - Strate collateral management
- Off Book Trade Reporting Model
  - Integration to Deal management

# Real Time Clearing (RTC) Functional Overview





## **Summary of Topics Covered To-Date**

# JS≣

#### **Clearing & Risk Management**

#### Clearing overview & daily lifecycle

- Post-trade functions
- Intraday & EOD processes

#### **Settlement**

- Single EOD run
- EOD balancing
- Settlement of margins, interest on cash, fees etc.
- Ad-hoc intraday margin call

#### Collateral management

- Securities & foreign currency collateral
- EOD & intraday processes

#### Legend

- Covered 💚
- Covered at high level, further coverage planned
- Not yet covered

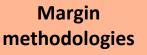
- JSPAN
- Margin add-ons
- HistVaR

#### **Post-trade** (intraday) risk monitoring

- Setting of intraday exposure limits
- Exposure updates and alerts

#### **Default** management

- Client default
- Trading Member default
- Clearing Member default







## **Summary of Topics Covered To-Date (cont.)**

# JS≣

#### **Deal Management**

Principles for trade reporting and deal management in agency & principal capacity

Deal management functions and examples



#### Interfaces, access and data structures

Entity & Account Structure

User access & enablement

Deal & position updates

Reference & pricing data

Billing structures & parameters

**EMAPI** specifications

Information Delivery Portal (IDP) file specifications

## **Summary of Topics Covered To-Date (cont.)**



# Clearing Member relevant functions facilitated by the Trading system

Pre-trade risk management

- Permissions
- Limits
- Controls

Monitoring of trading activity

- Orders (drop copy)
- Trades
- On-behalf-of activity
- Market data



#### General user readiness topics relevant to post-trade (and trading) participants

Connectivity

Disaster Recovery JSE Rules & Directives changes

Customer
Testing &
Conformance

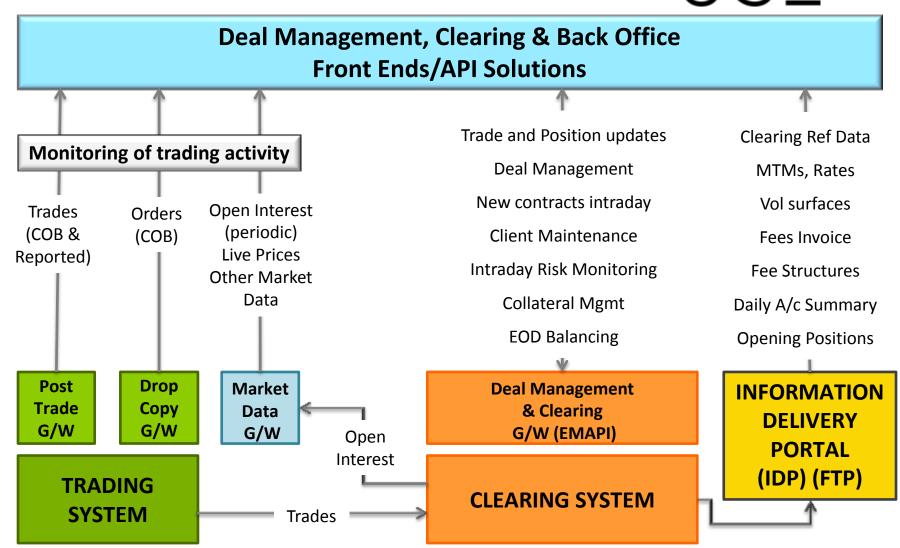
JSE services agreements

Data take-on & go-live activities

#### **Post Trade Interfaces**

**High Level Proposed Solution** 





# **Clearing Daily Lifecycle Summary**



#### Intraday

#### Throughout the day

- Deal management
- Position & Open Interest\* updates
- Post trade risk monitoring
- Securities collateral substitutions & top-ups
- Client maintenance
- New contracts

#### At certain times in the day

- Collateral intraday batch process
  - Securities and cash withdrawals
- ZAR and/or FX margins and fees payments (by specified time)
- · Benchmark rates published
- Early valuations prices published

#### Inter-day (EOD/SOD)

#### **EOD margin & fees processes**

- Calculate & publish closing prices
- Calculate margins & fees
- Balance to Clearing Members
- Pledging of securities collateral against initial margin
- Calculate ZAR and FX cash payment amounts

#### **Preparation for next day**

- Download reference & other data incl.
  - Margin parameters
  - Fee parameters
  - Member's own data (e.g. positions)
  - Etc.

#### **Other EOD processes**

- Interest on cash (monthly)
- Portfolio transfers (ad-hoc)
- Corporate actions (ad-hoc)

<sup>\*</sup>Open interest published via market data gateways

# **Collateral Management - Recap**

# JS≣

- With the implementation of ITaC Phase 1, JSE Clear will cater for the acceptance of securities collateral and potentially also foreign currency collateral against Initial Margin
- For the management of securities collateral the JSE intends using Strate's Clearstream Collateral Management System (CMS)
- The pledge mechanism will be used for securities collateral
  - CSDPS will be required to commit to pledges
- Participants wishing to post securities collateral will need to set up a Segregated Depository Account (SDA) at Strate

# **Collateral Management - Recap**



- An EOD process will cater for
  - Pledging of securities collateral against Initial Margin
- Intraday processes will cater for
  - Changing the mix of collateral posted against the previous days' Initial Margin call
- An intraday batch process will cater for
  - Substituting securities for cash and vice versa
    - Release securities by paying cash
    - Release cash by pledging securities

## **Collateral Management - Recap**



- Regularly throughout the day the following will be catered for:
  - Securities for securities substitutions
    - JSE Clear will send Strate CMS updated prices periodically to ensure substituting securities are equivalent in value
  - Securities top-ups
    - If the value of the pledged securities on an account falls below a specified threshold due to price decreases, additional securities are pledged to ensure the exposure (IM) is covered
    - If securities are not available a cash call is generated (and will be processed in the intraday batch process if received before the start thereof)



# Strate Collateral Management Services - ITAC



# Agenda

- Overview of the changing regulatory framework and T+3 considerations
- Current collateral practices
- Strate's Collateral Management Solution
- Interaction with SCMS front-end for ITAC
- Interim solution with JSE Clear for add-on margin

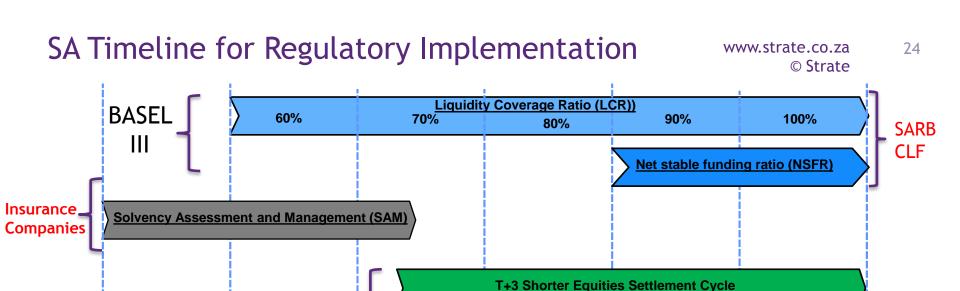




# Collateral Management Drivers Post Global

**Financial Crisis** © Strate Mandatory capital adequacy and liquidity benchmarks Mandatory Greater segregation of clearing of OTC collateral assets derivatives Mandatory Initial and variation Restricted re-use of collateral Margining of nonsecurities cleared OTC **REGULATION** derivatives Basel III; G20 Solvency II; CPSS-IOSCO; EMIR; Dodd Increased level Frank Global of fragmentation of collateralisation collateral of bi-lateral transactions More demand for **Secured Money** collateral from Markets replacing buy-side clean credit Increased demand for HQLA

as collateral



Jan 2017

High Quality Liquid Assets (HQLA) – Cash, Government Bonds, Top 40 equities, highly rated Corporate Debt

Jan 2015

Jan 2014

Liquidity is an essential component in facilitating an efficient and orderly market

Jan 2019

Securities Initial & additional Margin Listed

Mandatory central counterparty clearing of OTC derivatives

Bi-lateral collateral requirements for non-cleared OTC derivatives

Derivatives and Default Fund

Jan 2018

Increased demand for HQLA as collateral

**JSE** 

G20,

**FMA** 

Jan 2016



■ To be

ed

Jan 2020

confirm

#### **T+3 Considerations**

- Security collateral movements to be on a same day basis as with Securities Lending
   & Borrowing loans and returns
- A shorter settlement cycle would also require the shortening of the corporate action
  cycle, which requires more efficient processes in order for investors to respond
  timeously on elective events.
- Increased *Margin requirements* for brokers
- Increased operational risk
- Dividends withholding tax implications
- Out and out cession implications with imminent STT exemption





# Collateral Management Challenges for Market Participants

# Collateral identification and location

- What do I have?
- Where is it located?

#### Collateral mobilisation

- Can I move it?
- How pledge or cession?
- Timeframe?

### Collateral optimisation

- What is the cheapest to deliver?
- Authorised reuse under cession with
- Impact on my underlying portfolio?

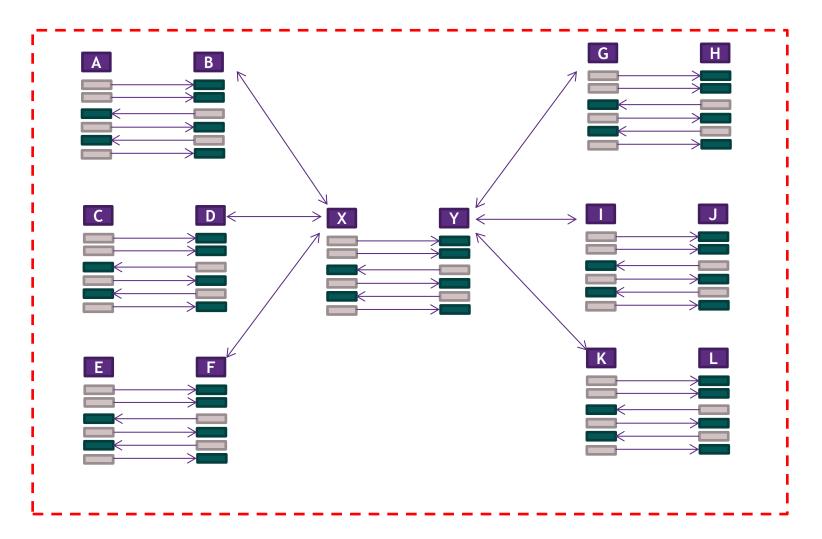
# Collateral transformation

- Do I have the right collateral?
- If not, how do I transform it?

Right collateral for the Right exposure at the Right time at the Right Place



# Typical Bilateral Relationships



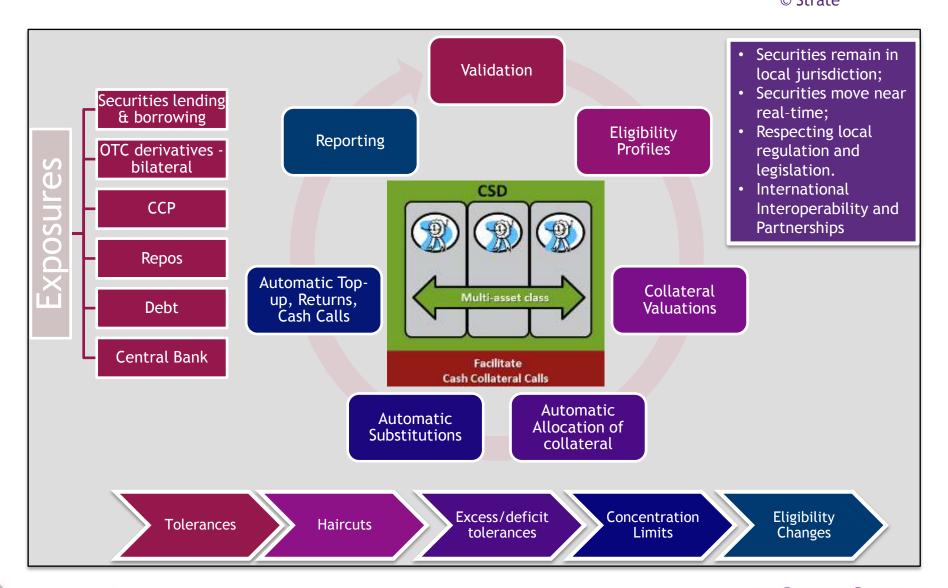


#### Current South African Market trends

- Unsure of the *full impact of regulations* on the availability of high quality liquid assets *(HQLA)* cash and government bonds top 40 equities?
- Tighter equity settlement timelines with t+3
- SARB Committed Liquidity Fund enable banks to meet Basel III ratios
- Collateral moves on t+1 or later
- Uncertainty of *current size* and *location* of collateral
- Over-collateralised positions inefficient and costly
- Long lead times for collateral recall trade settlements and Corporate
   Actions/Capital Events
- Uncertainty of current costs of placing collateral









- CSD Participant: Administrates securities movements initiated by Strate Collateral in SDA accounts
- Commercial banks: Facilitates cash settlements
- South African Reserve Bank: Confirms cash settlement through the Real Time Line (RTL)
- Collateral Givers and Receivers: provide exposures to collateralise on the platform
- JSE Clear: A collateral receiver



- Segregated accounts at Strate, administered and opened by a CSD Participant
- Keeps an audit trail of all collateral moves into segregated received accounts to ensure that the location of collateral is always known
- Increased asset safety and legal certainty in the event of early termination, default or insolvency
- Contracts under pledge, unauthorised collateral re-use or limited re-use is controlled within the solution through these accounts
- To open SDA accounts is free



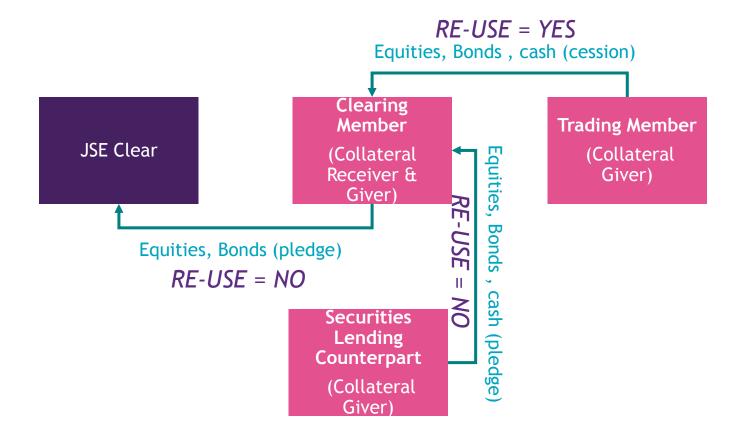


# **Collateral Optimisation**

- Most formal studies on collateral optimisation affirm that optimisation can reduce operational costs by 20-30%
- New revenue opportunities:
  - o Optimised returns on retained assets
  - Client collateral transformation
  - o Reduced operational risk of liquidity management
- Operational risk reduction with resultant reduced operational risk capital

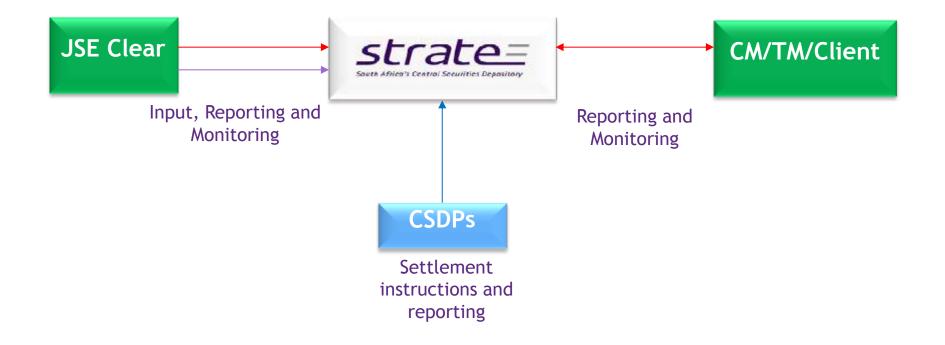








# Role players in ITAC and their interaction with Strate





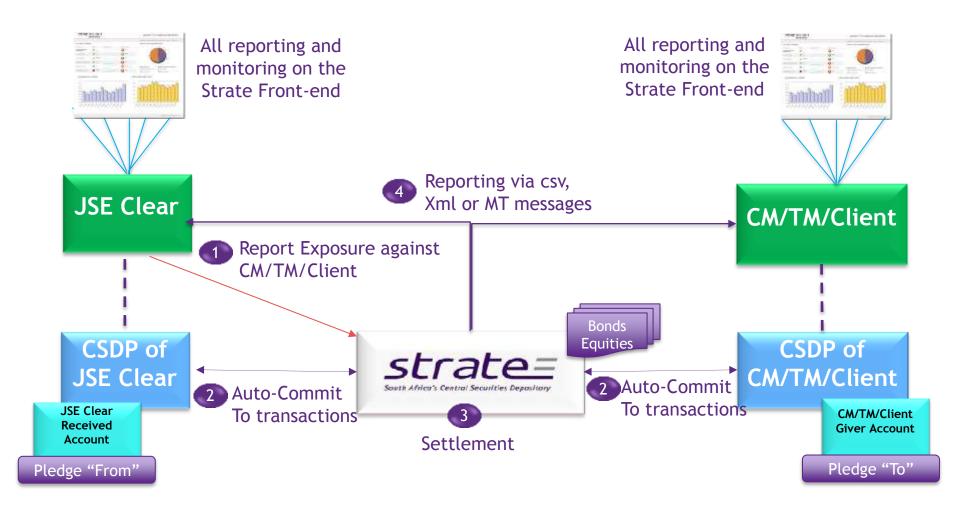
New Integration

**Existing Integration** 



#### ITAC interaction with Strate Collateral

www.strate.co.za © Strate



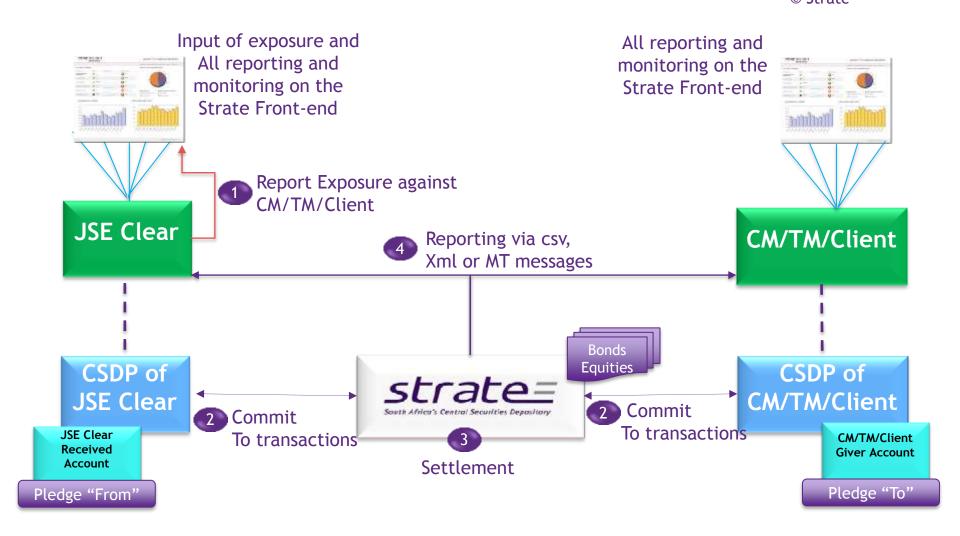
**Automated Instructions** 

**Automated Reporting** 



# Interim solution for Add-on Margin (Q4 2015)

www.strate.co.za © Strate



Instruction on Strate Front-end

**Automated Reporting** 



## THANK YOU

anthonyv@strate.co.za

www.strate.co.za

Follow us on Twitter, Facebook and LinkedIn









## Agenda



- ITaC User Readiness checkpoint
- Deal Management and Clearing
  - Functional summary & topics covered to date
  - Collateral Management including integration to Strate
    - JSE collateral management functionality recap
    - Strate collateral management
- Off Book Trade Reporting Model
  - Integration to Deal management



#### **Service Description**

- Real-time information on the trades executed on the current trading day via TCRs (trade capture reports)
- Trade Cancellations
- Trade Reporting for Off Book Trades

(Details of trades executed on previous trading days is not available via this service)

#### **Real-Time Connections**

 A client will receive the details of each of its own Trades (On and Off Book) immediately after they are executed

#### **Query-Based Service**

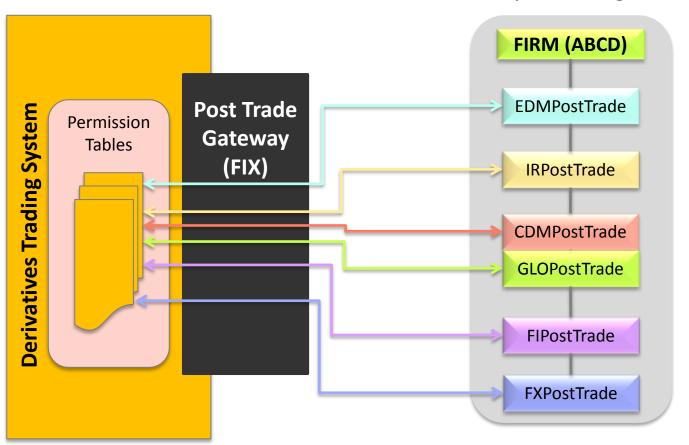
- A query-based client will not receive any real-time notifications of trades.
- Query based clients must send a request to the server requesting details of trades as and when they are required

Trading Members (TM) and Clearing Members (CM) can have access to both real-time and query based services

## **Logical Flow**



- TMs and CMs connect to the Post Trade GW
- TMs will receive On Book Trade confirmations and can submit Off Book Reported Trades through the gateway
- CMs will be able to receive all confirmed TCRs for TMs they are configured for



#### On Book Trade Information



- The FIX TCR message is used to transmit the details of each trade
- A TCR must be sent for each side of a trade to the Buying TM and the Selling TM. In the case of an On Book trade:
  - TradeHandlingInstr (1123) will be Trade Confirmation (0);
  - TradeReportType (856) of Submit (0);
  - ExecType (150) will be Trade (F);
  - MatchStatus (573) will be Matched (0);
  - TradeReportTransType (487) will be New (0);
  - TradeReportType (856) will be Submit (0)
- Each message will contain both basic and value added information on the trade (e.g. price quantity etc.), the security (e.g. Security ID) and the party (e.g. Member Firm, Trader Group, Trader ID)

#### Cancellation of On Book Trades



- Prior permission must be received from Market Regulation to cancel an On Book
   Trade as it must meet the specified requirements
- An On Book trade will only be cancelled if requests to cancel it are received from both sides of the trade (i.e. buyer and seller)
- Each member firm must separately submit an Off Book cancel request to the Post Trade Gateway by submitting a Trade Capture Report and the system acknowledges or rejects the cancel request via a Trade Capture Report
- Once both matching cancel requests are received by the system, the system will confirm the trade cancellation to both firms via separate Trade Capture Reports
- Neither firm may withdraw a pending trade cancellation request
- Unmatched trade cancellation requests are automatically deleted by the system at the end of the day. A notification is NOT sent to the initiating firm upon expiry of the unconfirmed trade cancel request

### Off Book Trade Reporting



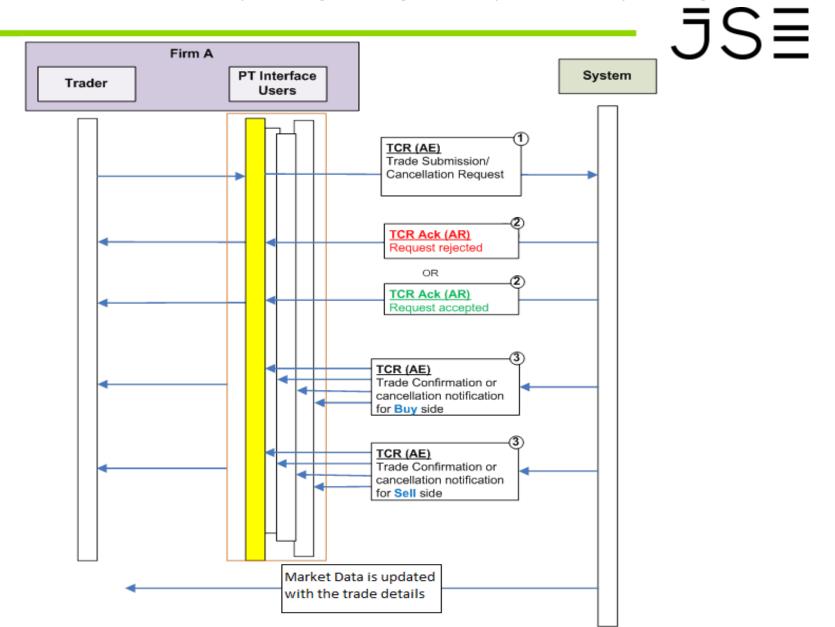
- Member Firms can submit Off Book trades to the respective markets in accordance with the rules for reporting trades in the respective market
- Each reported trade is subject to a series of validations and, if accepted, will be confirmed by the server
- A confirmed Off Book trade will be disseminated via the market data feed immediately if the trade type is stipulated as being published to the market
- Member Firms can also request the cancellation of confirmed Off Book trades
- There are two types Off Book Trade reporting models available
  - Single Party Trade Reporting Model
  - Dual Party Trade Reporting Model

## Off Book Trade Reporting – Single Party Trade Reporting



- Same member firm is on both sides of the trade (buyer/seller) and the member firm submits both sides of the trade in a single Trade Capture Report
- A Trade Capture Report Ack will be used by the server to acknowledge the receipt of or rejection of a trade report
- The server will transmit a Trade Capture Report if the trade is confirmed
- The cancellation of an Off Book trade process is identical to that used to report it
- The Trade Capture Report will, in addition to the instrument, include quantity and price
- Trade reports will include a valid Off Book trade type
- The dealing capacity and client account information will be mandatory for both sides of the trade i.e. buyer and seller
- Same day cancellations of an Off Book trade must be performed only within the current trading day
- Next day cancellations of an Off Book trade will be submitted as a new trade however the buyer and seller information needs to be swapped around i.e. Buyer in previous day Off Book trade will be the seller in a next day Off Book trade cancellation

Off Book Trade Reporting – Single Party Trade Reporting



### Off Book Trade Reporting – Dual Party Trade Reporting



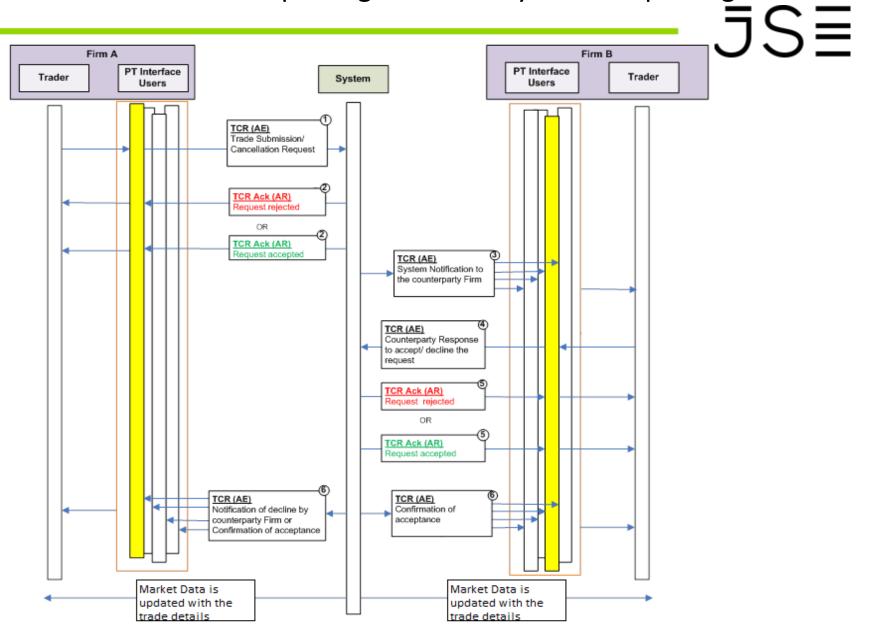
- Different member firm is on each side of the trade
- Off Book trade is initially submitted by one of the parties (usually seller but can be buyer) via a Trade Capture Report
  - Off Book TCR must include the identity of both Firms i.e. FirmID
- The server will send a Trade Capture Report Ack to acknowledge the receipt of or rejection of the Off Book Trade Report Submission Request
- If the Trade Report Submission Request is accepted by the system, the server will automatically transmit a Trade Capture Report to the counterparty Firm to prompt them to either accept or decline the Off Book trade request
- The Trade Capture Report will include all of the trade information provided by the reporting party information (e.g. instrument, price, quantity, trade type, trade time, counterparty etc.) specific to the side of the initiating Firm (e.g. client account) will not be provided

## Off Book Trade Reporting – Dual Party Trade Reporting



- The counterparty must either accept or decline the Off Book trade request via a Trade Capture Report
  - A Trade Capture Report Ack will be sent by the server to acknowledge the response of the counterparty Firm
  - The server will report the trade confirmation to each of the counterparties via separate
     Trade Capture Reports if the trade is confirmed by the counterparty Firm
  - If the trade is declined, the server will notify the Firm that initially reported the trade via a Trade Capture Report
- An unconfirmed Off Book trade report (i.e. where the counterparty has not yet accepted or rejected) may be cancelled by the party that initially reported it
- All unconfirmed Off Book trade reports within the system are automatically cancelled by the system at the end of the trading day. A notification will NOT be sent upon the expiry of the unconfirmed Off Book trade report
- The process to cancel an Off Book trade is identical to the process used to report it

Off Book Trade Reporting – Dual Party Trade Reporting



## Query-based Service



- A query-based client will not receive any real-time notifications of trade activity
- Query-based clients must send a request to the server requesting the details of trades they wish to receive as and when required
- A client may use the Trade Capture Report Request message to request the details of all trades or request specific trade details as meet the criteria available on the request
- The server will respond with a Trade Capture Report Request Ack to indicate whether the request is successful or not via
  - TradeRequestStatus (750) and
  - TradeRequestResult (749)
- The Trade Capture Report Request message can only be used to request a snapshot of the current trades, it cannot be used to subscribe to all Trade Capture Reports

## Query-based Service – All Trades



 To request all trades, the Trade Capture Report Request must include a TradeRequestType (569) of All Trades (0)

Tag	Field Name	Req	Descript	ion	
Standa	ard Header				
35	MsgType	Y	AD = Tra	de Capture Report Request	
Message Body					
568	TradeRequestID	Y	Client specified unique identifier of the request.		
569	TradeRequestType	Y	Type of request.		
			Value	Meaning	
			0	All Trades	
			1	Trades Matching Specified Criteria	

## Query-based Service – Specific Trades



- To request specific trades only, the Trade Capture Report Request must include a TradeRequestType (569) of Trades Matching Specified Criteria (1)
- Specific requests can be issued for a selected set of instruments or for a specific party, trade type or order
  - A specific Instrument ID
  - Type of Trade
    - Confirmed, Cancelled or Corrected
  - Match Type of the Trade
    - Off Book, Continuous Trading, Auction or Privately Negotiated Deal
  - Specific Party Identifiers
    - Firm, Trader Group and Trader ID or
  - Side of the Trade
    - Buy or Sell
  - Specific Order
    - Either a Client Order ID or an Order ID

## Query-based Service – Specific Trades



• Example for a request for Trades matching specific criteria

Tag	Field I	Name	Req	Description		
Standa	ard Hea	der				
35	MsgTy	/pe	Y	AD = Trade Capture Report Request		
Message Body						
568	TradeRequestID		Y	Client specified unique identifier of the request.		
569	TradeRequestType		Y	Type of request.		
				Value	Meaning	
				0	All Trades	
				1	Trades Matching Specified Criteria	
<b>→</b>	448	PartyID	N	Identifier	of the party.	
<b>→</b>	452	PartyRole	N	Role of the specified PartyID (448).		
				Value	Meaning	
				1	Executing Firm	
				76	Trader Group	
				53	Trader (5 digit number)	

#### On Book and Off Book Trades

Integration to Deal Management



- The following section explains the deal management activities that can be performed on trades received from the Trading System
- Refer to the principles relating to trade reporting and deal management of agency and principal trades in accordance with the alignment of the Equity Derivatives market to international best practices as detailed in the 15 July 2015 ITaC Working Group presentation

## On Book and Off Book Trades

## Deal Management Matrix



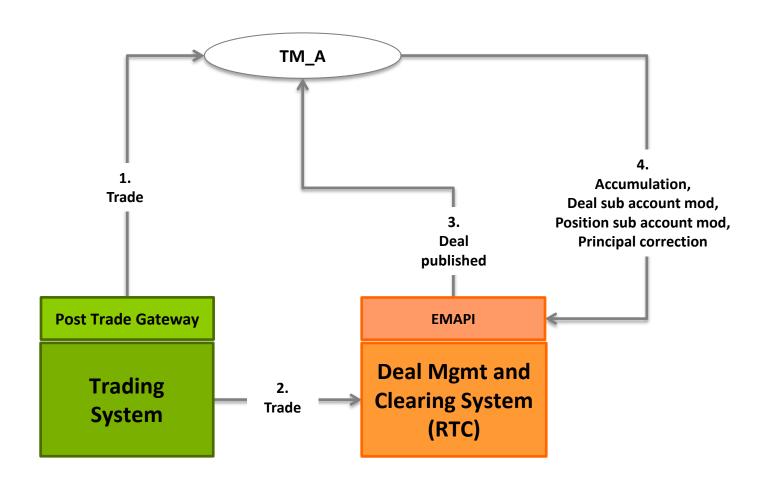
Capacity	State of Deal* in RTC	Action allowed	
Principal		<ul> <li>Accumulate</li> <li>Deal sub account modification</li> <li>Position sub account modification</li> <li>Principal correction</li> <li>Allocate on exception basis only</li> <li>Allocation error correction</li> </ul>	
Agency	On client suspense account	<ul> <li>Accumulate</li> <li>Allocate</li> <li>Assign</li> <li>Tripartite</li> <li>Deal sub account modification</li> <li>Position sub account modification</li> </ul>	
	On client account	<ul><li>Accumulate</li><li>Allocation correction</li><li>Principal correction</li></ul>	

<sup>\*</sup> A deal is one side of a trade i.e. either the buy leg or sell leg of the trade

## **Deal Management – Principal Transactions**

JS≣

Accumulation, Deal and Position Sub Account Mod's, Principal Corrections

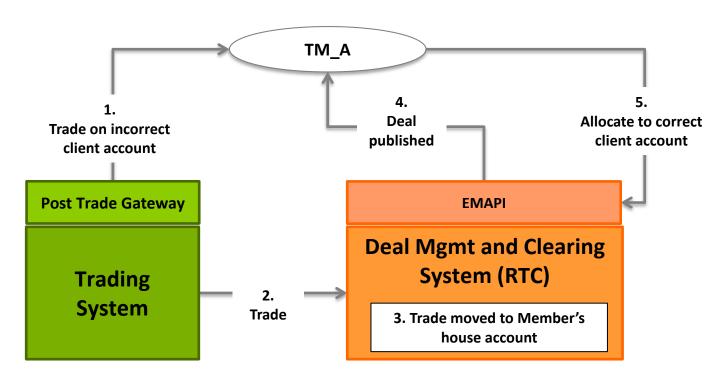


## **Deal Management – Principal Transactions**

## JS≣

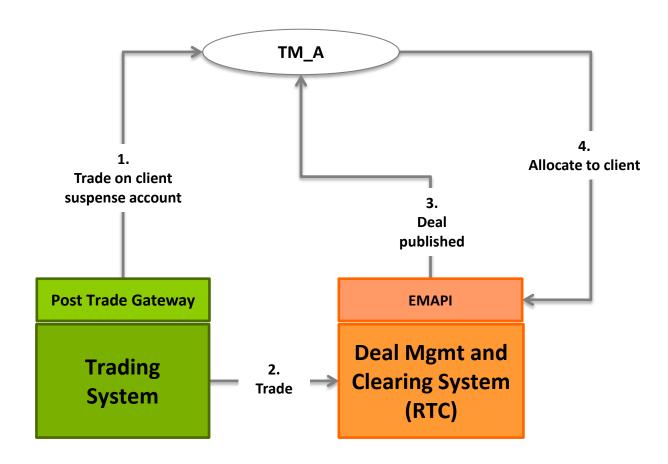
#### Allocation of a principal transaction - exception basis only

- When trading as principal with a client, allocations are to be performed on an exception basis only i.e. to rectify an incorrect client code
- In the case of an invalid client code on the trade, the trade will be moved to the member's house account as it is processed into RTC. An allocation to the correct client account is then done in deal management.



## JS≣

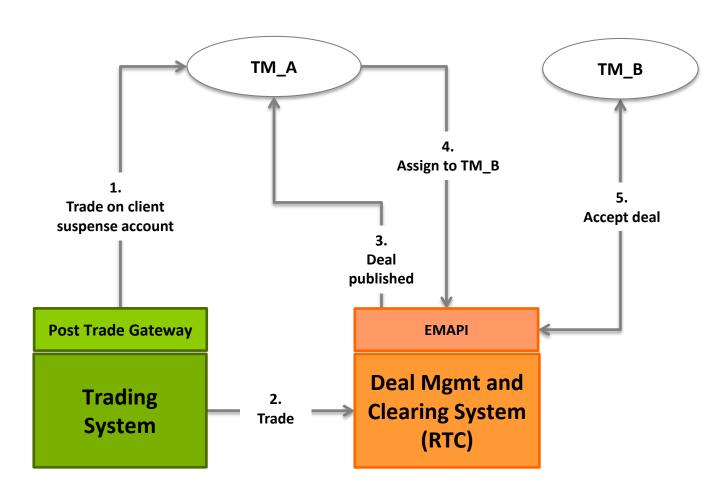
#### **Allocation (Member to Client)**

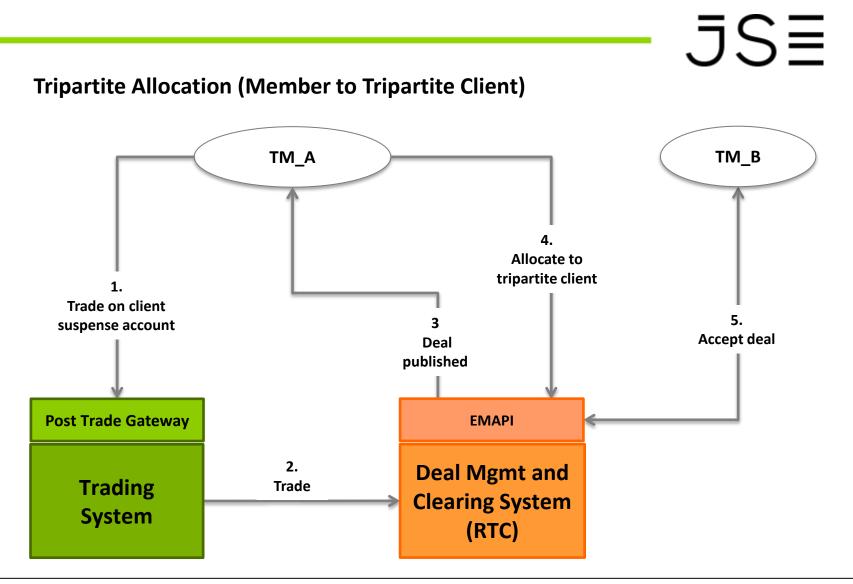


In the event that the agency trade is done directly on the tripartite client's account, no allocation would be required.

## JS≣

#### **Assign (Member to Member)**

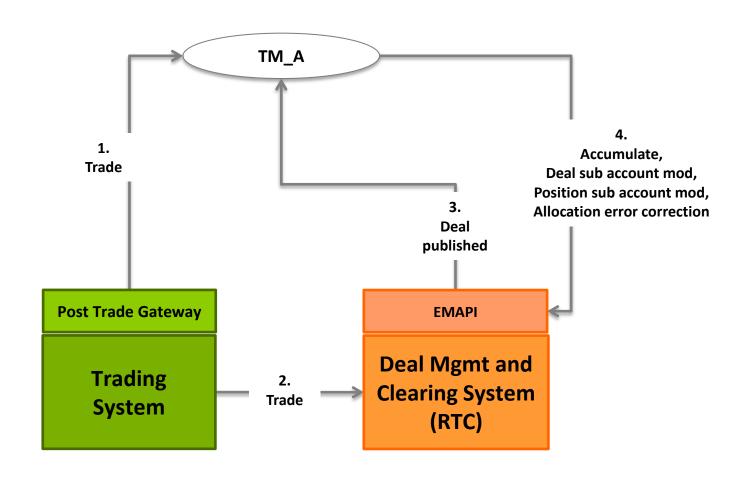




In the event that the agency trade is done directly on the tripartite client's account, no allocation would be required.

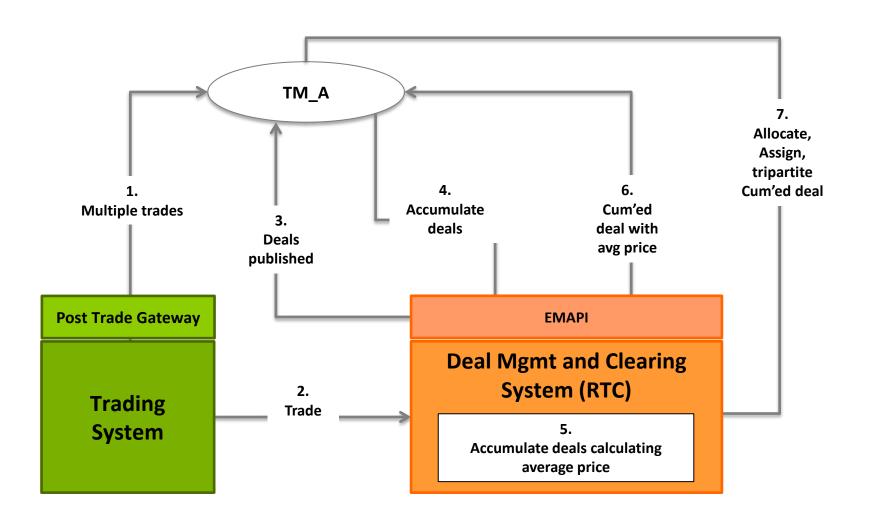
JS≣

Accumulations, deal and position sub account mod's, allocation error corrections



JS≣

Illustration - Accumulation followed by allocation, assign, tripartite



## JS≣

- As mentioned the JSE is open to exploring options which may support the processing of commissions
- The following slides depict <u>possible</u> flows of commissions in various deal management scenarios for agency transactions
- These flows and the feasibility of business processes and system functionality that would be required in support of them are still under investigation by the JSE
- The flows reflect current thinking and are presented here as a basis to begin engagements with the market on possible solutions in support of the processing of commissions
- The JSE requests input from the market in order to develop a solution that meets the needs of all stakeholders

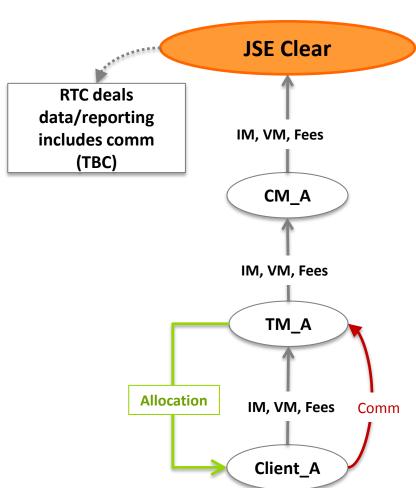


- In order to support the flows depicted in the next slides the following would be required:
  - Addition of a field for the ZAR commission amount on the deal in RTC
  - This field to be populated by the Member or Clearing Member system via EMAPI
  - Inclusion of commission on relevant RTC reports, outgoing deal messages and data downloads
  - In the case of give-up activity (assigns and tri-partite allocations) involving two different Clearing Members, JSE Clear involved in the collection and payment of commissions

Allocation (Member to Client)



#### **Commissions processing**



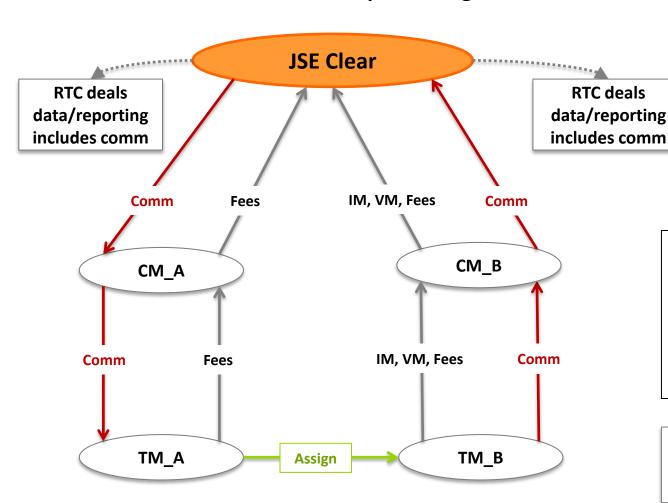
*Comm = Member commission* 

Fees = JSE Booking Fees

Assign (Member to Member)



#### **Commissions processing**

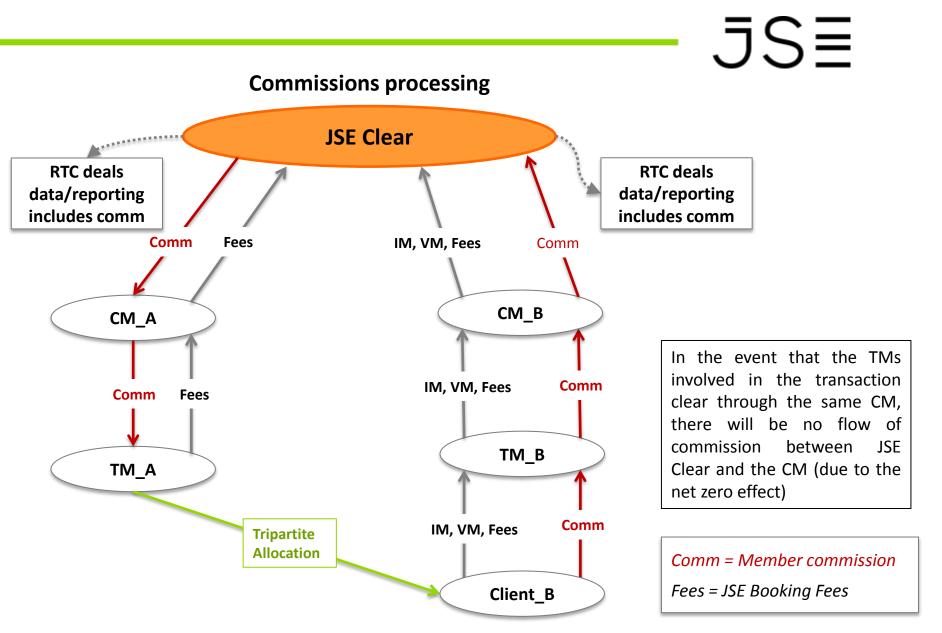


In the event that the TMs involved in the transaction clear through the same CM, there will be no flow of commission between JSE Clear and the CM (due to the net zero effect)

Comm = Member commission

Fees = JSE Booking Fees

Tripartite allocation



## **Questions?**

# JS≣

