

# JSE Software Provider Forum Q2

**Meeting Date:** 13 June 2024

**Meeting Time:** Call: 11:30 to 13:00

**Meeting Venue:** Online

**Details :** **Join on your computer or mobile app**

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**Meeting**

Duration: 1.5 Hours

**Duration:**

**Subject:**

JSE Software Provider Forum Q2 2024

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The logo for JSE, consisting of the letters 'JSE' in a bold, sans-serif font, followed by three horizontal lines of varying lengths stacked vertically to the right of the 'E'. The logo is positioned in the bottom right corner of the page, overlaid on a background of financial charts and data visualizations.

# JSE Software Provider Forum

No.	Item	Presenter	Time
1	<b>Welcome and Apologies</b>	Nasheen Sharma	2Min
2	<b>Nutron Repo Reporting Reform Project</b>	Paolo Govetto and Martin Koch	20 Min
3	<b>Equity Market Upgrade: Release 7.7</b> <b>a. Self-Match Prevention</b> <b>b. News Gateway Enhancement</b>	Hlamalani Huhlwane Hlamalani Huhlwane Sandra Borrageiro	5 Min 15 Min 5 Min
4	<b>Capital Adequacy Discussion</b>	Itumeleng Mphake	30 Min
5	<b>IRD/Cash Bonds Release</b>	Andrea Maisel	5 Min
6	<b>JSE Clear Initiatives</b>	Vaneshri Chetty	5 Min
7	<b>General and Questions</b>  <b>a. SENS Replacement Update</b> <b>b. Segmented Boards</b>	  Sandra Borrageiro Sandra Borrageiro	5 Min

# Nutron Repo Reporting Reform

Paolo Govetto

## OBJECTIVE

The purpose of this project is to manage the delivery and deployment of the reformed Repo Reporting requirements which will cater for the globally used **Classic Repurchase Agreements**, on the **Nutron front-end and API**. The new functionality will enable **Repurchase agreements with Deal Management** Functionality and Connect Nutron to Strate's Triparty collateral management System, which will supplement the JSE's existing buy-sell back offering.

# Product Scope

The Reforms add Trade Reporting for the following types of Repos :

- **Classic Repos:** currently only cater for buy-sellbacks (calculated on all-in price). New functionality will include Classic Repo (calculated on clean price).
- Fixed and floating rate
  - Haircuts
  - Open Ended and Closed Term Repos
- **Master-trade:** Creation of master trade with classic repo pricing which can be deal managed. Audit trail of all amendments to be linked to to 'master trade'.
- **Deal management:** substitute, extend, rate-reset.
- **Triparty Repos:** Links JSE trading system to Strate collateral management system.

# Timelines

- Final API will be published: Mid July 2024
- Software Provider initial conformance testing done: Mid-October 2024
- Full Market End-to-end Stakeholder testing: Quarter 1 2025
- Market Dress Rehearsals: Quarter 2 2025

# Impact to Stakeholders

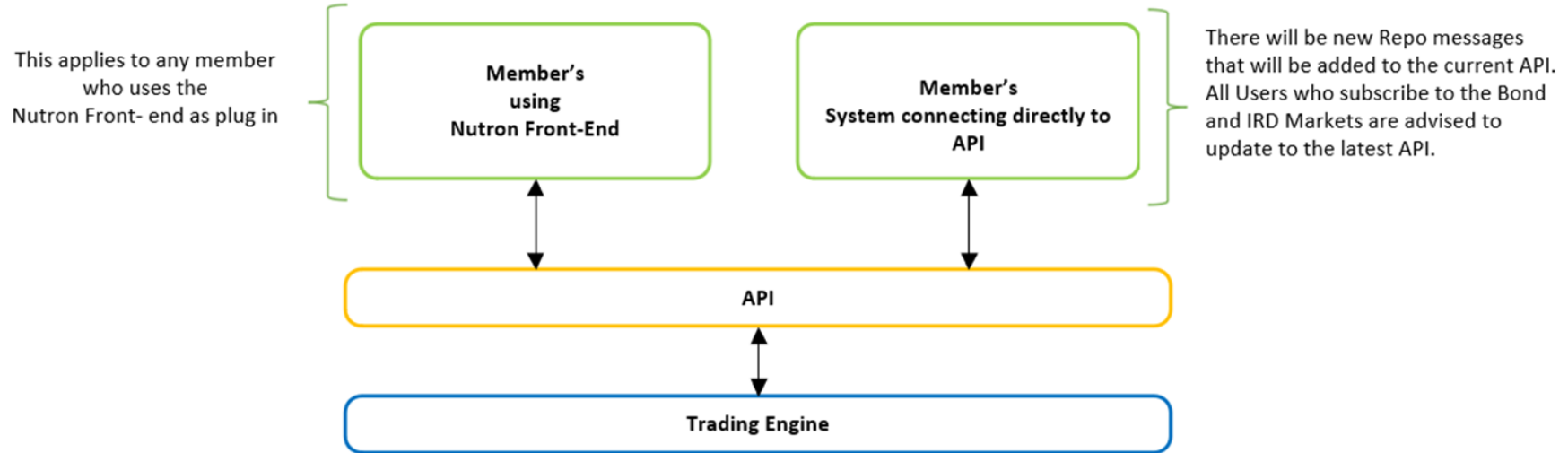
- **28** New API messages that will be added to enable Repos functionality



- No impact to the existing Buy Sell/Backs functionality

# Impact to Stakeholders - Connectivity

- All API vendors are mandated to complete conformance testing from when the CTS environment has been updated.
- All Nutron Users (Bonds & IRD) are required to download the latest version of Nutron *(A new link will be provided on the JSE website)*



# 3. MIT Upgrade: JSE Release 7.7

- Hlamalani Huhlwane
- Sandra Borrageiro



# MIT Upgrade : JSE Release 7.7

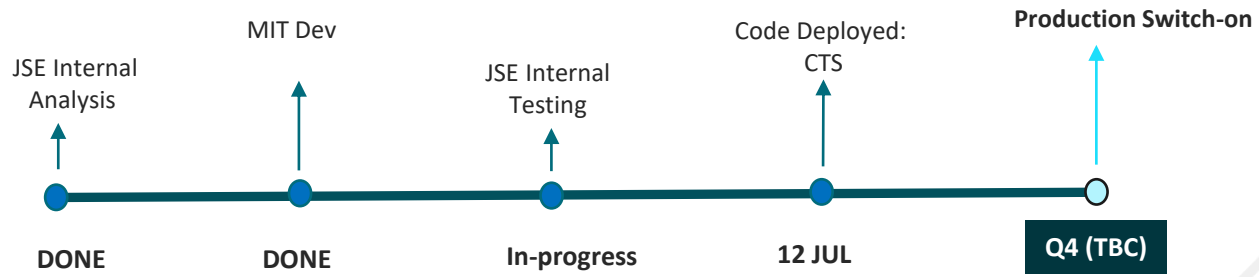
- **Planned go-live is Q4 2024**
  - Purpose of upgrade is to align to the latest versions of the Trading engine software, implementation of some new functionality and deployment of bug fixes
- **Documentation Updates**
  - Native Gateway documentation split – Existing Volume 01 – Native Trading Gateway will be split into: (1) an Equity Market and (2) a Derivative Market-relevant specification by simplifying each into:
    - Volume 01E – Basic Native Trading Gateway; for Equity Market participants
    - Volume 01D – Enhanced Native Trading Gateway, for Derivative Market participants.
  - This is to ensure that specifications are more streamlined and relevant, due to the nature of different messages structures across these markets.
- **Self Match Prevention (Equity Market Only)** – Discussed in detail in upcoming slide
- **NEWS Gateway Enhancements (Equity Market Only)** – Discussed in detail in upcoming slides
- **Other Enhancements (Equity and Derivatives Markets)** - These enhancements are provided for noting and have no impacts on API specification or conformance testing requirements, however, as part of good practice, conformance is recommended. Details provided on next slide

# MIT Upgrade : JSE Release 7.7 - Continued

- **Enhancements for Noting** - These enhancements are provided for noting and have no impacts on API specification or conformance testing requirements, however, as part of good practice, conformance is recommended. The list of enhancements
  - Trade cancellation after Market Close has been disabled. This has no impact to the normal trade cancellation process via JSE Market Regulation.
  - The MITCH Symbol Directory message will be enhanced to publish updated previous close values to the market in real-time if any changes are made by JSE operations.
  - The Order Mass Cancellation process is enhanced to work more efficiently in an atomic-event manner, there is no change to the functionality and system experience.
  - Trade cancellations initiated by both traders and JSE had the OrigClOrdID stamped in Execution Reports. This field will not be stamped for trade cancellations initiated by JSE Market Regulation anymore.
  - The process of managing market data requests for segments that have no instruments attached to them is enhanced to service the request and ignore the empty segments. This is a rare event on the Derivative Markets only as all Equity Market segments will have instrument attached to them.
- Link to Release Notes - [MIT Upgrade - JSE Release 7.7](#)

# Self-Match Prevention (SMP)

DESCRIPTION	MEMBER IMPACT:	DOCUMENTS IMPACTED
<ul style="list-style-type: none"> <li>❑ SMP is functionality that allows market participants to prevent their own orders from matching against each other by using an optional unique key.</li> <li>❑ The system is designed to prevent executions between orders marked with the same self-match key during continuous trading and closing price cross (CPX) sessions. Any incoming order that could result in an execution where the self-match keys are the same will trigger the resting order to be expired before trade can match.</li> </ul>	<ul style="list-style-type: none"> <li>❑ Optional – participants to opt in with the JSE before using SMP</li> <li>❑ API changes</li> </ul>	<ul style="list-style-type: none"> <li>❑ Volume 00E - Trading and Information Overview for Equity Market v406</li> <li>❑ Volume 01E – Basic Native Trading Gateway v404</li> <li>❑ Volume 02 – Trading Gateway (FIX 5.0 SP2) v402</li> <li>❑ Volume 201 – Guide to JSE Trading and Information Conformance v307</li> <li>❑ Volume 202 - Conformance Test Report v307</li> </ul>

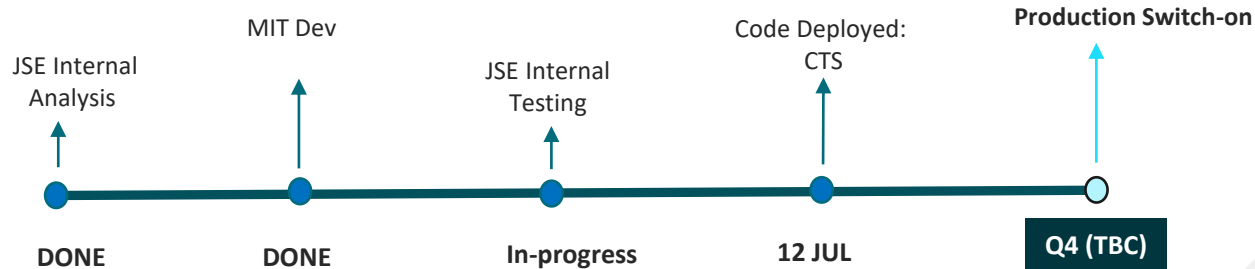


# ZA04 Closing Price Methodology

## DESCRIPTION

### ❑ Methodology 2

- The Closing Price will be based on the Mid-point of the last BBO during continuous trade (at the start of the Post Close Session).
- If the book is empty, then the closing Price will be zero reference the previous close.



## 3b. News Gateway Enhancement

- The Trading Upgrade Release 7.7 includes an enhancement to the News Gateway to correct the mapping of the News Source field
- On the News Gateway multicast feed, the News message field NewsSource (6940) will be corrected to **display the issuer name for all instruments**. This will specifically enhance the user experience for structured products and Exchange Traded Products (ETPs) as it is not currently populated correctly
- There is **no impact** to general shares where the issuer and instrument name of the company are the same.
- The JSE will be providing a fix to populate this field with the primary issuer (company) long name as held in the JSE Reference data.
- **No API changes or conformance testing** will be required
- **Volume 08** – Regulatory News Gateway

➔	6940	NewsSource	N	The related issuer/company description. This will be the Instrument Issuer Long Name specified by the JSE. Required if NoRelatedSym (146) is specified. Can be any value depending on the number of issuers. The first ever record in the repeating block will be of the primary issuer/company the announcement is related to.
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# 4. Capital Adequacy Discussion

- Itumeleng Mphake

## AGENDA

Capital Adequacy Requirements

OEA (DMA) Requirements and  
Concerns

Other-Risk layer management

# 1. CAPITAL ADEQUACY

JSE Requirements

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JSE

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## 1.1 JSE Equities Rules

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### 3.30.3 Financial resources

3.30.3.1 A member must on admittance and at all times ensure that it maintains adequate financial resources to meet its business commitments and to withstand the risks to which its business is subject.

3.30.3.2 A member must on admittance and at all times thereafter hold adjusted liquid capital which complies with the minimum requirements calculated in accordance with directive DC 2, sufficient to meet its base requirement and its risk requirement.

3.30.3.3 The base requirement of a member is the higher of –

3.30.3.3.1 an amount determined in accordance with the directives as being adequate to meet a member's fixed expenditure for a period of 13 weeks; or

3.30.3.3.2 R400 000.

3.30.3.4 The risk requirement of a member is the sum of its position, counterparty, foreign exchange, custody and large exposure requirements determined in accordance with the directives

## 1.2 JSE Capital Structure

### Risk Requirement (Capital Demand)

Base Requirement  
Custody Risk  
Position Risk  
**Counterparty Risk**  
Large Exposure Risk

### Liquid Capital (Capital Supply)

Share Capital  
Share Premium  
Audited Retained Earnings  
Non-Distributable Reserves  
Preference Shares  
Subordinated loan  
Bank Guarantee  
Prefunded Settlement Guarantee (Limited Use)  
Unaudited Profit/(Loss)

## 1.3 Adjusted Liquid Capital

Liquid Capital is adjusted by the following items:

- Impaired assets (intangible assets, guarantees provided, deferred tax, etc.)
- Illiquid assets (Fixed assets, investments in unlisted securities, settlement margin non-controlled clients.)

## 1.4 Counterparty risk requirement(Non-controlled clients)

9.14.1.2	Transactions in securities on behalf of non-controlled clients	
9.14.1.2.1	Where the CSDP of the client has committed to settling the transaction	Nil
9.14.1.2.2	Where the CSDP of the client has not committed to settling the transaction	
	<ul style="list-style-type: none"> <li>On trade date</li> </ul>	2% of the greater of the aggregate value of uncommitted purchases or sales in each security on each client's account
	<ul style="list-style-type: none"> <li>1 day after trade date</li> </ul>	Nil (Note: Uncommitted transactions are subject to margin on T+1 and the margin in respect of non-controlled client trades is treated as an illiquid asset)
	<ul style="list-style-type: none"> <li>2 days after trade date and thereafter</li> </ul>	100% of the difference between the transaction value and the market value of the securities. In addition, PRR shall be computed on the market value of the net of the unsettled purchase and sale transactions in each security on each client's account

# 1.5 SATURN Layout

Date As At 1: 2024/04/11 Date As At 2: 2024/04/10 Submit

	2024/04/11 INCL OVERRIDES (R)	2024/04/10 INCL OVERRIDES (R)	DIFFERENCE (R)	% MOVE	2024/04/11 OVERRIDES (R)	
<b>Adjusted Liquid Capital</b>	415,001,593	396,226,801	18,774,792	5	-19,692,705	
Base Requirement	85,404,224	85,404,224	0	0	0	
Custody Risk	0	0	0	0	0	
Position Risk	46,078	46,078	0	0	-79,017,974	
Counterparty Risk	75,610,199	76,215,329	-605,130	-1	-1,363,819,880	
Large Exposure Risk	6,221,362	7,185,052	-963,690	-13	0	
Large Exposure Risk on Positions	6,221,362	7,185,052	-963,690	-13	0	
Large Exposure Risk on Counterparties	0	0	0	0	0	
<b>Less: Capital Requirement</b>	167,281,863	168,850,683	-1,568,820	-1	-1,442,837,854	
<b>Capital Surplus(+)/Shortfall(-)</b>	247,719,730	227,376,118	20,343,612	9	1,423,145,149	

## 1.5 SATURN Layout contd.

	2024/04/11 INCL OVERRIDES (R)	2024/04/10 INCL OVERRIDES (R)	DIFFERENCE (R)	% MOVE
Counterparty Risk on Controlled Clients	1,363,819,880	1,375,875,913	-12,056,033	-1
Counterparty Risk on Non-Controlled Clients	1,407,815	2,506,089	-1,098,274	-44
Related Parties Unsettled Balances	0	0	0	0
Unsecured Loans	72,197,175	71,704,031	493,144	1
Other Receivables Outstanding for More Than 30 Days	3,227,944	3,227,944	0	0
Off-settable Loans to Related Parties or Others	0	0	0	0
Provision For Bad And Doubtful Debts	-1,222,735	-1,222,735	0	0
General CRR Overrides	-1,363,819,880	-1,375,875,913	12,056,033	-1
	75,610,199	76,215,329	-605,130	-1

# 1.5 SATURN Layout contd.

				③ TOTAL GROSS RISK (R)	③ TOTAL APPLIED OFFSETS (R)	TOTAL NON-CONTROLLED T TO T+2 (R)	TOTAL APPLIED PRE-FUNDED SETTLEMENT GUARANTEE (R)	TOTAL COUNTERPARTY RISK (R)
				395	0	1,407,420	-0	1,407,815
ACCOUNT NUMBER	ACCOUNT NAME	ACCOUNT TYPE	③ GROSS RISK (R)	③ GROSS OFFSET (R)	③ APPLIED OFFSET (R)	NON-CONTROLLED T TO T+2 (R)	COUNTERPARTY RISK (R)	
▶ 2235570	SMMPSL	Non-Controlled	0	0	0	765,808	765,808	
▶ 2240786	GRBSIM	Non-Controlled	0	0	0	261,826	261,826	
▶ 169839	COMPUTERSHARE LIMITE	Non-Controlled	0	0	0	98,891	98,891	
▶ 2246080	SLMLPS	Non-Controlled	0	0	0	91,134	91,134	
▶ 2236974	STXEWT	Non-Controlled	0	0	0	41,510	41,510	
▶ 339036	COMPUTERSHARE LTD: S	Non-Controlled	0	0	0	40,569	40,569	
▶ 2236644	AOS - ETFSA	Non-Controlled	33	0	0	36,168	36,201	
▶ 2230019	SANLAM	Non-Controlled	0	0	0	22,015	22,015	
▶ 233890	CATALYST ALPHA PRESC	Non-Controlled	0	0	0	18,005	18,005	
▶ 844274	SIM A/C SANLAM	Non-Controlled	0	0	0	13,253	13,253	
▶ 794297	VELOCITY TRADE FINAN	Non-Controlled	0	-18	0	6,959	6,959	
▶ 2245744	WEALTHPORT NOMINEES	Non-Controlled	20	0	0	5,514	5,534	
▶ 2244093	BANK WINDHOEK PROPER	Non-Controlled	0	0	0	2,870	2,870	
▶ 2256766	SEQCSW	Non-Controlled	0	0	0	2,609	2,609	
▶ 366880	SIM A/C ROSEBANK WEA	Non-Controlled	342	0	0	0	342	
▶ 2245405	THE ITRANSACT LIVING	Non-Controlled	0	0	0	289	289	
▶ 410035	COMPUTERSHARE NOMINE	Non-Controlled	0	-28	0	0	0	
▶ 2245868	BCI ENHANCED CORE BA	Non-Controlled	0	-5,629	0	0	0	

# 1.5 SATURN Layout contd.

							TOTAL HIGHEST ABSOLUTE AGGREGATE (R)	TOTAL RISK (R)
							38,290,323	765,808
INSTRUMENT ALPHA	INSTRUMENT NAME	INSTRUMENT TYPE	AGGREGATE UNCOMMITTED PURCHASES (R)	AGGREGATE UNCOMMITTED SALES (R)	HIGHEST ABSOLUTE AGGREGATE (R)	RISK %	RISK AMOUNT (R)	
ATT		Ordinary	1,090,642	0	1,090,642		21,813	
BTN		Ordinary	650,391	0	650,391		13,008	
EMI		Ordinary	313,791	0	313,791		6,276	
EQU		Ordinary	1,470,603	0	1,470,603		29,412	
FFB		B Ordinary	2,602,898	0	2,602,898		52,058	
FTB		B Ordinary	738,025	0	738,025		14,761	
GRT		Ordinary	5,564,932	0	5,564,932		111,299	
HYP		Ordinary	1,638,664	0	1,638,664		32,773	
LTE		Ordinary	1,228,991	0	1,228,991		24,580	
MSP		Ordinary	1,138,382	0	1,138,382		22,768	
NRP		Ordinary	10,776,010	0	10,776,010		215,520	
RDF		Ordinary	4,064,597	0	4,064,597		81,292	
RES		Ordinary	1,873,709	0	1,873,709		37,474	
SAC		Ordinary	933,154	0	933,154		18,663	
SRE		Ordinary	1,263,179	0	1,263,179		25,264	
SSS		Ordinary	777,518	0	777,518		15,550	
VKE		Ordinary	2,164,837	0	2,164,837		43,297	



# 2. ORDER ENTRY APPLICATION (OEA)

Risk Management: Market Regulation

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## 2.1 Directives BT 10 and BT 11

Trading Services Provider (TSP) that approved for the use of an OEA r to facilitate the electronic submission of orders by controlled clients or non-controlled clients, or both shall **ensure that at all times that the OEA meets the key objectives**

## 2.2 OEA KEY OBJECTIVES

- 1) Avoidance of Erroneous Orders and Manipulative Practices
- 2) Management of Order Limits and Order Types
- 3) **Settlement Assurance**
- 4) Adherence to Trading Phases
- 5) Maintenance of Audit Trails
- 6) Adherence to the rules and directives.
- 7) Adherence to security and technical requirements

## 2.3 Settlement Assurance

The OEA must be able to **verify, before** submitting any orders to the JSE equities trading system, the **capacity of the client to settle trades** resulting from orders processed via the application, through the use of **appropriate exposure limits for non-controlled clients** and checks on availability of funds and securities for controlled clients

## 2.4 Capital Adequacy concerns

Notwithstanding the low 2% risk factor on the total market value as required, a few of the brokers have breached their capital adequacy requirements due to:

- Not having checks and balances for DMA flows from its institutional clients

# DMA THEMATIC REVIEW CONDUCTED

To gain understanding on how members were treating DMA trades in terms of exposure limit management, we sent a list of questions to a few members in September 2023

- Please confirm whether the member receives algorithmic (algo) trades through its DMA pipe?
- If the answer is yes from above, name the DMA client behind the algorithm trades.
- Does the client own the algo? Please provide the name of the owner if different from the client.
- Should there be more than one DMA client in place with each having their own arrangements, please provide the necessary detail for at least 3 DMA examples.
- What front-end platform is the DMA client using (Hermes, Iress, etc)?
- What are the risk layers/limits that are embedded in the DMA platform in relation to capital adequacy management?
- How are the risk layers/limits derived and how often are they updated?
- What factors inform the update of the risk layers/limits?
- How is capital adequacy monitored and managed daily in relation to DMA algo trades given that the member would be accepting other “normal” client orders through-out the course of the trading day?
- On days where the member has lower than normal capital adequacy surplus, how are the DMA algo trades managed?
- In instances where the algo misfires and goes rogue, who has the responsibility and capability of killing the algo?
- Are the abovementioned processes and controls documented in the CAPAD manual?

# DMA THEMATIC REVIEW RESULTS

Awaiting the service provider to revert  
No longer using the approved DMA pipeline  
Members indicated that they had no specific risk management controls for DMA trades.  
No risk layer to confirm that the trade volumes received were within the member risk appetite/limits

Members indicated that they were not receiving DMA trades from institutional clients however they were in the process of drafting applicable DMA mandates as well as determining the necessary exposure limits and/or risk layers

Members had no DMA trades from institutional clients however they had confirmed that they had an internally developed system where they manage and monitor the set trade limits for controlled clients, non-controlled clients and for proprietary trading

Members explained that there are 3 systems involved in DMA trades, platform where the client trade is executed via an algo, internal system that checks the set client exposure limits and where the order is transmitted into the central order book

## 2.5 Appropriate exposure limits for non-controlled clients

The JSE is not prescriptive on what the exposure limits should entail however the expectation is that the limits set should be commensurate with the risk imposed by the specific non-controlled client

- Take us through your system capabilities as far as setting exposure limits(e.g. individual order limits, daily trading limits, aggregate settlement exposure limits?)
- What are the governance requirements around uploading the exposure limits? ( Are there sign off/review modules?)
- Is the system functionality optional to members or does it come as a standard feature?
- How many member' are actively using this feature?
- Can this functionality be bypassed by the members?
- How often is training/knowledge sharing sessions held with the members?
- What are the other DMA filters that trades are subjected to?



### 3. Other

What are the available standard HFT risk layers and how are they embedded in the platforms provided?

# 5. IRD/Cash Bonds Release

- Andrea Maisel

# 5. Interest Rate Derivatives and Cash Bonds Release

## Andrea Maisel

- STT trading system release consists of enhancements and fixes to the current production code:
  - **Clean Price**
  - **Dealer allocated to on Assigning a trade**
  - **Past trades not visible on spot view trades**
- Software providers are encouraged to test during the scheduled test cycle to ensure successful conformance and implementation.
- Trading and Clearing Members are strongly advised to test their daily operational activities during the test cycle.
- Testing cycle in CTS: 29 May 2024 – 7 June 2024
- Go-live: 13 July 2024

# 6. JSE Clear Initiatives

- Vaneshri Chetty

# RTC version 1.38 upgrade

## Technology Upgrade

- upgrade of Java Stack
- upgrade of Operating System

## Why is the upgrade necessary

- To strengthen our security
- Cybersecurity attacks are continuously evolving, therefore we need to ensure we have the latest technology to safeguard our data and our client's data.

## Testing

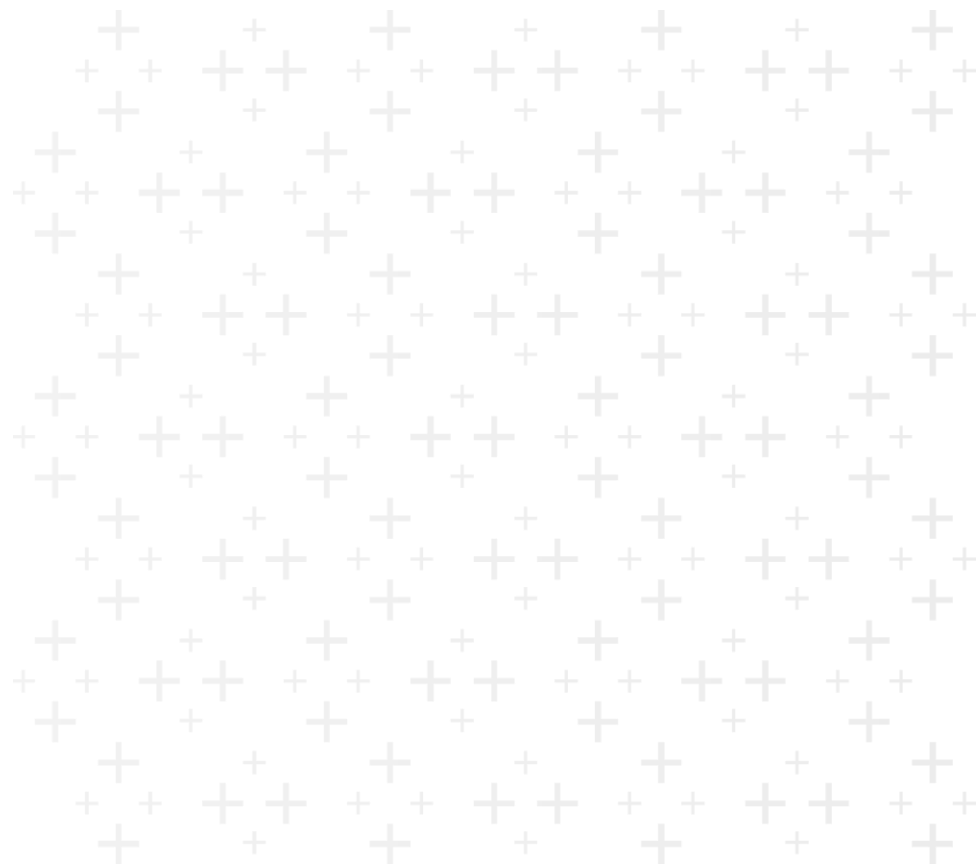
Functional testing will be required. Testing Dates to be advised.

Provisional go-live date 16 November 2024

# Client Facing Changes and Initiatives

Description	Details	Comment
ASR Router replacement	Impacts all Markets and Services	<ul style="list-style-type: none"> <li>No client changes required</li> <li>Testing will be done on Tues, Thursday &amp; Saturday (Where Required)</li> <li>Only technical connectivity testing required</li> </ul>
IDP TLS Change and IDP upgrade	Intro of test server	Dates TBC
IDP change (removal of a specific IP),	Impacting approximately 20 clients	Targeting 31 July 2022 for completion
BDA port 23 removal	10031 & 10147	<ul style="list-style-type: none"> <li>Port 992 has been in production since 2019</li> <li>Some users are still using port 23</li> <li>To be decommissioned on 31 July 2022</li> </ul>
Potential BDA Bug fixes	Based on Business Impact	Testing and Development Phase
Internal Disaster Recovery (DR) Test Market Facing Disaster Recovery(DR) Test	24 & 25 Aug 2024 19 & 20 Oct 2024	Within the Key Dates Summary
ECS Technical Upgrade	Upgrading OS to new version with SQL 2018	November 2022

# 7. General



# 7a. SENS Replacement Update

- JSE is currently busy conducting an RFP for the SENS Replacement
- Once the RFP is successfully completed, we will communicate further



# 7b. Segmented Boards

- In May 2022, as part of its ongoing efforts to ensure that the bourse is fair, efficient, transparent and competitive, Issuer Regulation released a consultation paper, requesting stakeholders to comment on a raft of proposals
- One such proposal was the Market Segmentation Project for which overwhelming support was received
- JSE currently has a two-tiered equities market, namely: the Main Board and AltX. Considering international benchmarking, the project aims to reposition the Main Board into two segments
- A **new flag** will be introduced to confirm how the Issuer is regulated, the naming convention for Market Segmentation, is being proposed as the **Prime** Segment and **General** Segment
- Only available for main board primary issuers – default will be Prime Segment. Issuers must apply to the JSE to seek classification in the General Segment, subject to the proposed segmentation threshold (market capitalization of R3 billion and below)
- The FTSE/JSE All Share Index serves as the segmentation threshold, which is a well known and established market index
- Issuers in the FTSE/JSE All Share Index will therefore not be eligible for the General Segment
- The new flag will be added to the Client Trading Reference data EOD files for display on trading frontends i.e. Volume 09 and will **go live with Release 7.7**
- We are finalizing the requirements and will communicate further in due course

# 5. Commodity Derivatives Release B

## Zintle Dastile

- STT trading system release consists of enhancements and fixes to the current production code:
  - **Spot Basis related issues**
  - **Intermittent disconnects and latency issues**
  - **Frontend downloads and reports**
- Software providers are encouraged to test during the scheduled test cycle to ensure successful conformance and implementation.
- Trading and Clearing Members are strongly advised to test their daily operational activities during the test cycle.
- Testing cycle in CTS: 24 July 2024 – 14 August 2024
- Planned Go-live: Q3

End, Thank you...

