Welcome to the JSE Market Communication Broadcast
Session start: 13h00 SAST (GMT+2)
Teleconference number: +27 87 350 0288
Conference ID: 677002#
JSE moderator will dial in at 12h55 SAST


www.jse.co.za
Agenda

All Markets
- JSE Colocation offering
- Shared Infrastructure Provider (SIP) policy
- NEW Network Service Provider (NSP) policy
- SAFCOM ESMA Recognition

Equity and Commodity Derivatives
- 2013 Releases

Interest Rate and Currency Derivatives
- 2013 Releases

Equity Derivatives Business Initiatives

Equity Derivatives System Replacement
- T+3 Phase 1 implementation
- Equity Market Business Model update
- 2013 November upgrade
The JSE Colocation Ecosystem

COLOCATION ECOSYSTEM

Trading

Software

Information

Infrastructure
**MARKETS**
JSE colocation will provide clients access to all JSE markets, although the implementations will be phased.

**CLIENTS**
All JSE client types will be permitted to collocate: JSE members + their Clients, JSE information subscribers + their Clients, JSE SIPs + their Clients, MSPS and NSPs.

**PRICING**
The pricing of all colocation offerings will be the same for all client types.

**TRANSPARENCY**
The JSE will measure, monitor and publish colocation service quality parameters on a central portal.

**SERVICE EQUALITY**
The JSE colocation environment will be designed to provide equal performance to all racks from the Trading Systems regardless of its location in the facility.

**LIMITED CAPACITY**
Racks will be allocated on a first come first served basis within a limited capacity constraint.

**COLOCATION PRINCIPLES**
Key Data-Centre Characteristics

- Aligned to TIER III Standards (Availability)
- Network Service Provider (NSP) agnostic CARRIER HOTEL
- All Managed Service Providers (MSP) permitted
- 24/7 Remote Hands Service
- 24/5 – 8/2 Access to Data Centre
- Monitoring data published online
Key Benefits

LATENCY ADVANTAGE
- Fastest trading access irrespective to client location or client type
- Fastest market data access

COST SAVINGS
- Reduce bandwidth cost by replacing trade and data flow by configuration flow

NEW TRADING STRATEGIES
Enabler of low latency trading strategies through
- High speed trading access
- Potential execution probability improvement
- Enhanced response to market movement

RISK MITIGATION
- Reduced dependence on NSP performance
- Resilient infrastructure throughout the environment
Current Connectivity

MATCHING ENGINES

EQUITY MARKET

DERIVATIVES MARKETS

JSE ACCESS NETWORK

CONNECTIVITY TO CLIENT OFFICES

JSE REGULATORY REQUIREMENT

Legend:
- Equity – Trading
- Equity – Market Data
- Derivatives – Trading & Market Data
- Client Connectivity
Colocation Concept

Legend:
- Equity – Trading
- Equity – Market Data
- Derivatives – Trading & Market Data
- Client Connectivity (Management)
Latency* measured from gateway-to-gateway is consistent.

* Latency is measured specifically for the Equity Market and may vary across clients.
* Latency excludes trading engine turn-around-time.
* Latency is based on the fastest quoted latency value by network service providers in each region in South Africa.
Indicative Latency Gain – Colocation vs Access Network

Local Client Network Latency Gain via Colocation: at least 24 x faster!

International Client Network Latency Gain via Colocation: 2 100 x faster!

Access Network Clients ~2550 µs to 210 150 µs
Current ~2 785 µs to 210 385 µs

MIT Trading Engine ~150 µs Current ~385 µs

Colocation Clients ~250 µs

µs = micro seconds
Colocation Products and Services

**PRIMARY PRODUCT: FULL RACK**

**Trading Engine Connectivity:** 10 Gbps fiber X 6
- Equity Market
  - 1 X trading connectivity
  - 1 X redundant trading connectivity
  - 2 X market data connectivity (A and B Feed)
- All Other Markets
  - 1 X trading & market data connectivity
  - 1 X redundant trading & market data connectivity

**Remote Management Connectivity:** 1 Gbps fiber X 2
- 2 x Fibres to JSE devices in access network
  - 1 X client’s management connectivity
  - 1 X redundant client’s management connectivity

**Power per Rack:** 3.3 kVA

- Power allocation
  - Standard minimum 3.3 kVA per rack
  - No additional charge till 1344 kWh per month
    - 3.3 kVA X 8 hours X 5 days
    - 3.3 kVA X 50% X 16 hours X 5 days
    - 3.3 kVA X 50% X 24 hours X 2 days
  - Additional power consumption will be chargeable and consistent power usage in excess of the threshold will result in the purchase of an additional rack
SECONDARY PRODUCTS

Cross Connect: JSE Enabled

- The following types will be allowed
  - Member to same member rack
  - Member rack to client rack
  - Member rack to SIP rack
  - Client rack to SIP rack
  - Once-off installation fee of R3 500
  - Monthly maintenance fee of R 500

Sub-letting: JSE Enabled

- The following subletting options will be permitted:
  - Member to Member Client
  - SIP to Member
  - Each has to be registered with the JSE
  - No additional charges for sub-letting

Time Sync Service: Subscription Based

- No additional cost for initial take up of first 35 racks
- Clients will need to procure compatible hardware
Monitoring: LATENCY

- JSE Infrastructure Latency monitoring will be performed
  - During trading hours
  - Published on a central portal
  - No additional fee
  - 24/7 environment monitoring will also be performed

Support: REMOTE HANDS

- Limited remote hands support will be available
  - Available to all participants 24/7
  - No additional fee up to a specified limit
  - Further support through MSPs/NSPs

Once-Off: ON-BOARDING

On-boarding will comprise of
- Requirement gathering and design advice
- Test facilitation
- Rack and Stack
- Once-off fixed fee will be charged
- Future changes will follow a change request process and charged on a time & material basis
Data Centre Security

**PHYSICAL**
- Security personnel available 24/7
- Camera surveillance

**ACCESS**
- Strict access policy across booking, identification, access processes and procedures
- All visitors will be escorted by JSE staff
- Bio-metric access to racks
- Multi-layered network security

**MONITORING**
- Environmental monitoring
- Central monitoring system with 24/7 dedicated monitoring personnel
Colocation Price

Rental price per rack per month

R 51 000

**INCLUSIONS**

- 3.3 kVA Power
- Access to all JSE markets
- 2 X Equity Trading Connectivity*
- 2 X Equity Market Data Connectivity (A & B Feed)
- 2 X Derivatives Trading & Market Data Connectivity*
- 2 X Remote Management Connectivity*
- 24/7 remote hands support
- Latency monitoring service
- Time sync service

*Including Trading Redundancy

**EXCLUSIONS**

- Once-off on-boarding charges
- Additional trading connectivity
- Additional market data connectivity
- Additional client connectivity
- Cross-connect fees
## Colocation Indicative Timelines

<table>
<thead>
<tr>
<th></th>
<th>Q3 - 2013</th>
<th>Q4 - 2013</th>
<th>Q1 - 2014</th>
<th>Q2 - 2014</th>
<th>Q3 - 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCO/Board (GO/NO-GO) decision</td>
<td>Jul</td>
<td>Aug</td>
<td>Sep</td>
<td>Oct</td>
<td>Nov</td>
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<td>JSE Facility and Technology Upgrade</td>
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<td>Legal and Regulatory Requirements</td>
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<tr>
<td>Client Testing</td>
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<tr>
<td>Initial Client On-boarding</td>
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<tr>
<td>JSE Infrastructure setup completed</td>
<td></td>
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<tr>
<td>Ongoing Client On-boarding</td>
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</tbody>
</table>
For further information relating to the JSE Co-Location Offering, please send an email to Colocation@jse.co.za

Documentation link

The JSE also recognises the need for JSE members to reduce costs by sharing infrastructure (where possible) and accordingly in Sept 2010, the JSE introduced the JSE Shared Infrastructure Policy (SIP) for the Equity Market which replaced the JSE Application Solution Provider (ASP) policy which was published in 2002

The SIP policy is based on the JSE maintaining fair and orderly markets in order to ensure market integrity and sourced input from principles published by the International Organisation of Securities Commissions (IOSCO) and effective IT Governance contained in King III

The SIP policy IS NOT a complete set of governance principles or controls but addresses aspects related to JSE market integrity

The SIP policy is currently being updated to accommodate all JSE markets and will be applied to all JSE markets in a phased approach
A SIP is defined as a legal entity that provides shared infrastructure services to more than one JSE trading member. This includes, without limitation:

- application or application service hosting
- platform hosting (e.g. virtual machines)
- shared network
- physical infrastructure hosting services
- shared telecommunications (e.g. MPLS)

Any SIP wishing to provide shared infrastructure services to JSE members for any market will need to be accredited by the JSE in terms of the SIP policy

JSE SIP Agreement must be signed by SIPs
Initial administration fee payable for initial application and accreditation

• Reduced fees for take on of new SIPs for other markets; existing SIPs who extend their services for other markets will not pay additional fees

JSE SIP Committee meets monthly and reviews and approves accreditation

Applications requiring approval must be submitted to the JSE 10 working days prior to monthly JSE SIP Committee meeting

Accreditation valid for 1 year from date of issue

Administration fee payable for annual accreditation renewal

Notification must be provided to the JSE in writing of any changes that reduces compliance with any of the principles and/or to the list of JSE members using a SIP
Currently no formal JSE Network Service Provider (NSP) Policy exists

Telecommunications is one of the fastest growing sectors of South Africa's economy, driven by explosive growth in mobile telephony and broadband connectivity

The resultant demands on the JSE to provide space within the JSE’s carrier hotel have grown exponentially

Telecommunication providers who provide services to JSE members are not governed by any JSE policy or standards nor do they pay for any hosting space or electricity consumption

The existing expansion of the JSE’s carrier hotel facilities requires a new approach and accordingly the JSE will implement a new JSE Network Service Provider Policy and agreement which will govern the relationship between the JSE and the various telecommunications providers

The NSP Policy is expected to be in place by 1 January 2014 and any person wishing to provide input to this policy should contact TradingServices@jse.co.za
SAFCOM ESMA Recognition
Tyrone Arendse
ESMA established EMIR (European Markets Infrastructure Regulation) in late 2012:

- Initially focussed on OTC derivatives, but extended to include on-exchange derivatives
- Aimed at creating standards for the clearing, risk management and reporting of derivative contracts
- Directly impacting the activities of EU-based CCPs and Trade Repositories

ESMA Recognition: Origins and impact

EMIR has implications for EU entities operating outside of the EU:

- Some local derivatives clearing members can be classified as branches or subsidiaries of EU-based holding companies and are therefore directly impacted by the EMIR requirements
- If Safcom wishes to continue offering clearing services to these EU-registered entities, ESMA recognition has to be sought – failure to do so would result in these entities having to terminate their clearing activities with the CCP

15 September 2013 - application deadline:

- Impacted CCPs who fail to meet this deadline will be required to cease clearing operations
- Application assessments will continue beyond this deadline – meaning that current clearing activities can continue until such time as a call on “recognition” has been made

CCP’s currently offering clearing services to EU entities are required to apply for EMIR recognition by 15 September 2013
ESMA Recognition: Process / Roles of the CCP and Regulators

CCP ASSESSMENT PROCESS

Safcom
- Submits application to ESMA
- ESMA communicates recognition decision within 6-9 months from date of application

FSB
- Bilateral engagements i.r.o. of the process
- Requests for recognition, establish an implementing act with ESMA (MoU)
- Specifies info required & prepares technical advice for equivalence

ESMA
- Authorisation decision given
- Requests for recognition, establish an implementing act with ESMA (MoU)
- Specifies info required & prepares technical advice for equivalence

NATIONAL FRAMEWORK ASSESSMENT

NCA (National Competent Authority)
- ESMA asks NCA to authorize Safcom

EU Commission
- EU declares jurisdiction equivalent
- ESMA Provides technical advice to EU
ESMA Recognition: Risks / Next Steps

**Risks:**

- Legislation is still in the process of evolving
- Divergent views regarding interpretation of the legislation
- Complexity of the compliance process – involvement of multiple parties and inputs (some outside of the applicants control)
- Failure to comply may prejudice our Clearing Members – and further compound concentration issues in our market

**Next Steps:**

- Continue FSB engagement
- Conclude Gap Analysis
- Collate application inputs and ready submission to ESMA
- Notify ESMA of Safcom’s application submission intentions
August 2013 Release

- Go live on 19 August 2013
- NUTRON Front end Upgrade (available for download from mid-day 09 August 2013)
- Mandatory NUTRON front end upgrade (previous versions will no longer be able to login)
- No market facing dress rehearsal
- Derivatives API Version 2.1 Revision 5
August 2013 Release Functional Changes Summary – applicable to NUTRON and API users

- Equity Derivatives Market (EDM)
  » Multiple expiry dates within same month on Can-Do Contracts
  » Addition of a new billing model for Can-Do Contracts
  » Introduction of dividend neutrals on Index Futures

- Commodity Derivatives Market (CDM)
  » Add a physical buy and physical sell column on “con positions” sub account level
  » Add the ability to select multiple certificates at the same time and ensure loading of bulk offers based on location and premium
  » Add the ability to edit spot basis order, as per the current functionality for futures
  » Potential new billing methodology for basis premiums based on a sliding scale
November 2013 Release

- Go live date TBA post discussion at next JSE TWG meeting (scheduled for Monday 5 August 2013)
- Mandatory NUTRON front end upgrade
- API specification to be published shortly

Functional changes Summary

- Equity Derivatives Market (EDM) applicable to NUTRON and API users
  » eCFD Phase 2
Interest Rate and Currency Derivatives – 2013 Releases

October 2013 Release

• Go live on 14 October 2013
• NUTRON Front end Upgrade (Available for download from mid-day 04 October 2013)
• Mandatory NUTRON front end upgrade (previous versions will no longer be able to login)
• Market dress rehearsal TBA
• Derivatives API Version 3.1 Revision 6
October 2013 Release Functional Changes Summary – applicable to NUTRON users only

- NUTRON rate and price traded instruments soft limits now configurable to 4 and 5 decimals respectively
- Change to ALWAYS delete active orders on a loss of connection
  » Configurable to keep active orders or suspend on user logout
- Apply number formats consistently across all views
- Reset booking time so that users are forced to capture a trade time
- Spot Bond specific
  » Allow users to bulk upload deals that are not spot/repo and ensure that the flags are carried through to the system
  » Bulk upload of deals that are other trade types then Spot / Repo
  » Instruments view aligned to represent all deals the same irrespective of settlement date
  » Bug fix - Inflation linked bonds price incorrectly when in ex period
October 2013 Release Functional Changes applicable to NUTRON and API users:

- New product: FX Implied Futures
- Editing and deleting of unmatched report only trades results in counterparty dynamic update
- Fees calculated correctly on closeout by correctly netting off standard and maxi FOREX contracts
- Spot Bond specific
  - Booking of spot bonds allows for decimals on nominal
  - Allow the pricing of replica inflation linked bonds by allowing for a base CPI to be captured
  - When diving an OX or SD deal the flag is carried over to the new legs
  - Enhanced the deals div function to div using decimals
  - Positions file updated to include unmatched deals
  - Allow deals to remain unsettled to S-1
  - Users to create their own client codes
Equity Derivatives Business Initiatives

Magnus de Wet
Contracts for difference – eCFD

- Target market
  - Exchange only mandates
  - Inward listed OTC derivatives
  - Eminent regulatory changes

- Prototype Feedback
  - Price discovery and execution
  - Multiple Contracts
  - Expiry Date
  - Cost

- Revised version
  - Single Contract based on current dynamic strike functionality
  - eCFD Advisory Sub Committee
  - Expiry Date?
  - Cost?
  - Timeline?
Equity Derivatives Business Initiatives

Contracts for difference – eCFD (contd.)

• Market-makers
  » Investec – Phil Dube
  » RMB – Bryan MacCallum and John Parent
  » Other market-makers busy testing/developing solutions

• Stats
  » Instruments loaded → 7
  » Value traded → R400k
  » Contracts traded → 2,500
On-screen Options Project

- Aimed at retail market
- ALSI on-screen Options
- Market-maker
  » Applied Derivatives - Nicolaas Mouton
- Billing methodology
- Size of the on-screen doubles
On-screen Skew

30 Jul 2013 Live Sep13 Prices

- Call Bid
- Call Offer
- Put Bid
- Put Offer
- Vol Spread

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On-screen Options Project Stats

Value Traded

Millions

Value Traded
Linear (Value Traded)
The moving of the Equity Derivatives Trading System onto MillenniumIT remains a strategic imperative for the product.

Prioritisation of T+3, OTC Clearing and Strate’s DIS Project result in earliest timeline for Equity Derivatives Trading System Replacement being H2 2015.

Market will be informed as and when additional information becomes available.
Short Break
Equity Market Slides to follow…

Equity Market
- T+3 Phase 1 implementation
- Equity Market Business Model update
- 2013 November upgrade
T+3 Project
Leila Fourie and Brett Kotze
<table>
<thead>
<tr>
<th>Phase</th>
<th>Status</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All go-live activities successfully implemented:</td>
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<tr>
<td></td>
<td>● Minor Release 1 (Update of CSDP details) – successfully installed 6 July</td>
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<td></td>
<td>● Major Release (Separation of Proprietary and Controlled accounts) – successfully installed 21 July (with some minor issues on migration of holdings)</td>
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<td>● Minor Release 2 (Settlement Sweeps) – successfully installed 24 July</td>
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<td>● Minor Release 3 (Corporate Actions) – successfully installed 27 July</td>
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<tr>
<td>Critical Milestone</td>
<td>Comments</td>
<td></td>
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</tr>
<tr>
<td>1</td>
<td><strong>Monday 8 July</strong> - Loading members new Prop and CTL CSDP details. This was successfully implemented, effectively avoiding any settlement issues</td>
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<tr>
<td>2</td>
<td><strong>Weekend 20/21 July</strong> - The big deployment. Implemented with no market facing / critical issues</td>
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<td>3</td>
<td><strong>Monday 22 July</strong> - Ensuring settlements happened smoothly and that nothing from the weekend’s deployment impacted this process</td>
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<td>4</td>
<td><strong>Monday 22 July (Evening)</strong> - Ensuring that Controlled and Prop trades were split into different netting accounts</td>
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<tr>
<td>5</td>
<td><strong>Wednesday 24 July (Evening)</strong> - Ensuring that we created separate Nets for the split of Controlled and Proprietary and achieving Zero Sum to balance all settlements and no rejections from Strate for the nets created</td>
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<tr>
<td>6</td>
<td><strong>Thursday 25 July (Evening)</strong></td>
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<tr>
<td></td>
<td>• Ensuring that the Funding of Controlled and Proprietary purchases were calculated and processed correctly and correct Swift instructions issued to Banks</td>
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<tr>
<td></td>
<td>• Ensuring creation of separate Nets for the split of Controlled and Prop and achieving Zero Sum to balance all settlements and no rejections from Strate for the nets created</td>
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<tr>
<td>7</td>
<td><strong>Friday 26 July</strong></td>
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<tr>
<td></td>
<td>• Migration reports created and instructions issued to CSDP’s to move holdings between accounts</td>
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<td></td>
<td>• CSDP’s committed to orders for Mondays settlement</td>
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### T+3 Project: Phase 1 major milestones (cont.)

<table>
<thead>
<tr>
<th>Critical Milestone</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td><strong>Friday 26 July (evening)</strong> - Ensuring that the JSET Sweep instructions for controlled client proceeds of sales were calculated and correct Swift instructions issued to Banks</td>
</tr>
<tr>
<td>9</td>
<td><strong>Sunday 28 July</strong> - Deploying all the Corporate Action changes</td>
</tr>
<tr>
<td>10</td>
<td><strong>Weekend 27/28 July</strong> - Reconciling all outs between brokers accounts – technically there were only 172 reconciliation issues that needed further investigation. The other 482 were just transfers between accounts by the CSDPs</td>
</tr>
<tr>
<td>11</td>
<td><strong>Monday 29 July</strong> - ensuring that the 1st settlement post the split is achieved</td>
</tr>
</tbody>
</table>

**Summary: 3 main objectives**

1. Ensure no impact to settlement windows between 22 and 26 July 2013. 🙄
2. Ensure that we can settle on Monday 29 July 2013. 🙄
3. Ensure the migration/transfer of holdings to separate prop and controlled holdings. This is a complex task and required extra effort to reconcile holdings. This has been achieved. We anticipate that minor reconciliation issues will be managed over the next couple of days, but these are not material. 🙄
T+3 Project: Phase 1

The JSE would like to thank all market participants for the part that they played in successfully implementing T+3 Phase 1

Thank you 😊
<table>
<thead>
<tr>
<th>Phase</th>
<th>Status</th>
<th>Comments</th>
</tr>
</thead>
</table>
| 2     | ![Smiley](image) | • Development is progressing well  
• Single message integration between ECS and BDA progressing well  
• The team is busy analysing the impact of security vulnerabilities that have been identified |
| 3     | ![Smiley](image) | • Initial workshops with external parties were concluded where the functional requirement specifications (as documented 3 years ago) were reviewed  
• A few additional workshops will be scheduled to conclude the items that were listed as outstanding - but this should not affect the impact analysis done by the external parties  
• Aimed to conclude the impact analysis during September to have a view of external timelines by year end |
Equity Market Business Model (EMBM)

What has been done to date

• Extensive internal and external research conducted on Clearing Models and Fees
  » Help identify elements that will determine a new EMBM
  » Understand the different equity market business models and what the possible preferred models could be

• 4 educational videos developed to document the current EMBM which can be used by the market as training tools. Link to videos:

• Extensive discussions with Working Group and JSE Board regarding current equity market model and the possible regulatory and future clearing model choices under 9 dimensions

• Revised Equity Market Trading Fee Billing Model which will be implemented on 30 September 2013
The way forward

• Recognise the need to focus on other prioritised initiatives for now

• Therefore:
  » Pick up the actual model work next year
  » The remaining component pieces of work under the EMBM initiative which are not related to the actual model to be concluded this year and early next year e.g. remaining billing model reviews
Equity Market – 2013 November Upgrade

Leanne Parsons
## Description of Change

<table>
<thead>
<tr>
<th>Description of Change</th>
<th>Impact to Clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two new sessions being introduced:</td>
<td><strong>POC for ZA01 only</strong></td>
</tr>
<tr>
<td>- Closing Price Publication (CPP)</td>
<td>The CPX session is introduced to allow trading only at the Closing Price. The CPP session is introduced to publish Closing Prices to the market as per the closing price conventions. <strong>NO</strong> trading takes place for an instrument while it is in the CPP session. If the session after the CPP session is the CPX session, orders parked during the CPP session will be injected at the start of the CPX session. All orders participating in the CPX session are processed one by one in time priority. They are executed ONLY at the published closing price with CPX eligible contra orders. All CPX orders, including the CPX market orders, get lower priority than the existing orders sitting in the main container that are eligible to take part in the Closing Price Cross session.</td>
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</tbody>
</table>
### 2013 Product Upgrade – Summary Scope

<table>
<thead>
<tr>
<th>Description of Change</th>
<th>Impact to Clients</th>
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</thead>
<tbody>
<tr>
<td>Adding Trading ‘Currency’ field on the Trade Capture Reports to clients</td>
<td>This is a Mandatory change.</td>
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<tr>
<td></td>
<td>A <strong>new field</strong> (15) Currency which will be populated with the trading currency attached to the instrument on TCR message to clients.</td>
</tr>
<tr>
<td>Transact Time no longer required on a Trade Cancellation</td>
<td>This is a Mandatory change.</td>
</tr>
<tr>
<td></td>
<td>Currently, for On Book Cancellations via the Post Trade Gateway, the TransactTime is a mandatory field. With this change, the TransactTime field on the submitted TCR <strong>will not</strong> be mandatory for On Book Trade Cancellations as the field is not required by the System for processing.</td>
</tr>
</tbody>
</table>
## 2013 Product Upgrade – Summary Scope

<table>
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<th>Description of Change</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Ability to Perform Mass Order Status Request By Instrument and/or Segment</td>
<td>This is an Optional change. Currently OOBD Mass Order Status Request can be requested by Firm or TraderGroup_Trader combination. Two <strong>new values</strong> will be added to the MassStatusRequestType (585) of the Mass Order Status Request message to allow for the request of all open orders for a Firm or TraderGroup_Trader in a specific Instrument and/or Segment.</td>
</tr>
</tbody>
</table>
| Sequence number added to the heartbeat messages on FAST Market Data Gateways | This is a Mandatory change. This change introduces a new field ‘ApplNewSeqNum (1399)’ on the FAST Market Data Gateways Heartbeat message that will contain the next application sequence number (i.e. ApplSeqNum (1181) of the next application message), to enable clients to identify whether they have missed Market Data messages.  

This now includes sequence numbers on heartbeat messages for Indices and News Gateways |
# 2013 Product Upgrade – Summary Scope

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Publication of Market Operations Announcements on ITCH MDG and FIX / NATIVE Trading Gateways</td>
<td>This is a Mandatory change. Market Operations Announcements will be published via the ITCH Market Data Gateway via a <strong>new</strong> message. This now includes publication of Market Operations Announcements on Fix and Native Trading Gateways</td>
</tr>
<tr>
<td>Recover Market Operations Announcements on ITCH MDG and FIX / NATIVE Trading Gateways</td>
<td>This is a Mandatory change. Market Operations Announcements will now be recoverable via the Recovery Channel on the ITCH Market Data Gateway. This now includes publication of Market Operations Announcements on Fix and Native Trading Gateways</td>
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</table>
## 2013 Product Upgrade – Summary Scope

<table>
<thead>
<tr>
<th>Description of Change</th>
<th>Impact to Clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update all statistics when Trade Cancellations/Corrections are done</td>
<td>This is a Mandatory Change. Currently, Statistic updates related to Same Day trade cancellations and corrections (both On Book and Off Book) are limited to Volume, Number of Trades, Turnover and VWAP. This change will enable the update of other existing stats for Trade Cancellations and Corrections (both On Book and Off Book), such as High/Low Price, Last Traded Price, Opening Price, Closing Price, Last Trade Type, etc. This feature will be enabled for the JSE.</td>
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<tr>
<td>Length of all ITCH messages</td>
<td>This is a Mandatory Change. As a result of the introduction of market operation announcement messages to the ITCH feed, the field length of the ITCH messages needs to increase. Therefore “LENGTH” changes from a length of 1 to 2 in all ITCH messages</td>
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# Future Release enhancements

- The JSE will notify clients prior to implementing these changes

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<td>New time in force orders that does not interact with hidden orders</td>
<td>This is a Mandatory Change. The JSE is discussion with MillenniumIT, for the introduction of a new flag on a new order that ensures the order does not interact with hidden orders to only facilitate a book over as requested by clients. Further details will be published as and when available.</td>
</tr>
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</table>
| Change to message throttling                                                        | Introducing intelligent message throttling during peak message periods. The JSE would like to consider this and would like client feedback on this.  
**Intelligent handling of known message peaks (configurable)**
  System mechanism to identify events where a bulk publication of market data occurs (e.g. Market Manager events). During such events, the gateways will switch to the Bandwidth Optimization mode. Gateway will switch back to normal mode after the event.
**Bandwidth aware throttling (not configurable)**
  Market Data Gateway’s configured with a throttle limit that is configurable number of bytes transmitted within a configurable period, as opposed to the number of messages per second which is the current implementation. If total bytes received during any period exceeds the limit, the gateways will buffer the messages and publish them in subsequent time intervals, subject to the set limit. |
2013 Product Upgrade

• Updated Services documentation available to clients including the FAST templates
• Updated specs includes the Indices and News Gateway specs with sequence numbers on heartbeat messages
• CTS Upgrade planned for 8 August 2013 (early shutdown of service)
• Two market facing dress rehearsals will be held, one in late September and the other during October
• Anticipated Go Live is November – TWG scheduled for Monday, 5 August 2013 to discuss implications of derivative and equity releases during November and client’s appetite to manage the effort of these releases together
• Key dates and project timeline will be published post the TWG
Customer Test Service changes (covered in detail at TWG next week)

- JSE will allow for an extended period for the CPX session in CTS (5 min in PROD) to facilitate client testing of this period e.g. 30 min
- A detailed schedule will be provided confirming the Market Operations announcements to be published in CTS to facilitate testing
- Market Operations announcements will be published via the ITCH Market Data Gateway and the FIX FAST Market Data Gateway
- Conformance Test changes will be discussed at the TWG

Contact TradingServices@jse.co.za for any queries related to the Equity Market Release
Questions?

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