



ITaC INTEGRATE
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Integrated Trading & Clearing (ITaC)

Dress Rehearsal Feedback & Timeline Update

13 December 2017

- Mandatory Market Dress Rehearsals
 - Feedback from Second Mandatory Market Dress Rehearsal – 25 November 2017
- What is changing?
- High Level Timelines and Key Dates



**Market Facing Dress Rehearsals for
November 2017**

Leanne Parsons

Dress Rehearsal Feedback



Objective	Outcome MMDR1	Outcome MMDR2	Met?	Reason
Participation				
All EDM and FX Trading Members (clients enabled for both markets = 2x Setup)			94%	124 of 132 clients enabled 8 Clients (6 unique) not ready
All EDM and FX Clearing Members			100%	All 8 Clearing Members were enabled and tested
All real-time Live Information Subscribers			100%	All enabled

Dress Rehearsal Feedback



Objective	Outcome MMDR1	Outcome MMDR2	Met?	Reason
Practice JSE cut-over activities required for Go Live			Fully tested	JSE tested all it's end-to-end cut-over activities Minor issues were experienced in preparing the client csv files. Delivered late for MMDR1 but on time for MMDR2 with a minor instrument issue which was correct Friday night.
Practice SW Provider/SIP and Client cut-over activities required for Go Live			Partially	The majority of Clients and SIPs/SW Providers only tested trading and clearing cut-over activities successfully. Clients did not test all cut-over activities for downstream systems and other system dependencies e.g. market maker applications, DMA applications
Prove technical enablements and front-end connectivity – ensure permissions and authentication is correct			Partially	A few clients experienced connectivity issues due to incorrect configuration of their solutions. JSE created: <ul style="list-style-type: none"> 676 Trading CompIDs 156 Market Data CompIDs 153 Real-time Clearing CompIDs 2040 Trader IDs

Dress Rehearsal Feedback



Objective	Outcome MMDR1	Outcome MMDR2	Met?	Reason
Practice trading day activities				
<p>Conduct functional testing of trading and post-trade systems that you wish to implement</p> <ul style="list-style-type: none"> - Test all functionality that your business is dependent on and that you do on a daily basis - Capture a controlled set of orders and trades, perform deal management activities and verify the outcome of the results on all screens, reports, downloads etc. - Verify integrity and accuracy of transactions generated - Make use of the JSE high level functional checklist to guide functional testing - Test any downstream integration systems that are dependent on the ITaC API adapters to ensure end to end functionality prior to go live 			<p>Not Met</p>	<p>Trading Members did not test all trading and deal management functionality</p> <ul style="list-style-type: none"> - Clients experienced issues with front-end software and trader permissions - Connectivity delays - Not all Front-ends have functionality in place yet to restrict view access/segregate access within firms <p>Some clients could not process public market data correctly (incorrect configurations)</p> <p>Live market data feeds to JSE London PoP were throttled correctly</p> <p>Clearing members tested limited system functionality and some were not able to test functionality at all</p> <p>Only some clients prepared detailed checklists of the scenarios they would test</p> <p>Some clients did not test downstream applications an integration</p>

Dress Rehearsal Feedback



Objective	Outcome MMDR1	Outcome MMDR2	Met?	Reason
Practice trading day activities				
Familiarise yourself with the new systems and your new front-ends			Not Met	<p>Very few clients attended/viewed JSE conceptual training</p> <ul style="list-style-type: none"> - Trader and clearing operations staff knowledge of new market models and processes lacking especially Trade Reporting - Clients have not read business overview documents and guidance notes <p>Clients have not watched JSE conceptual training videos on JSE YouTube channel (search Johannesburg Stock Exchange)</p> <p>Not all clients received user guides/training on their new SW prior to the dress rehearsal. Clients are responsible to ensure all traders and clearing staff receive the necessary training prior to go live</p> <p>Not all traders participated in dress rehearsal</p> <p>Clients must test their solutions against their business requirements and functional criteria</p>

Dress Rehearsal Feedback



Objective	Outcome MMDR1	Outcome MMDR2	Met?	Reason
<p>Gauge the overall level of readiness across the market:</p> <ul style="list-style-type: none"> - Trading Members - Clearing Members - Information Subscribers 			Partially	<p>Test assisted in identifying areas requiring attention by clients!</p> <p>No clients had a clean test. Most clients (except Clearing Members) managed to test most of the functionality they use. Issues in software identified by clients that did not work as expected</p> <p>Many clients have requested additional time to test and additional dress rehearsals</p> <p>Clients must make better use of the Customer Test Service (CTS) to conduct functional testing</p>
Build internal and external confidence for go live			Not Met	<p>Clients understand the new solution better and the importance and relevance of tests however are not ready for go live – more testing required</p> <p>Key focus areas requiring work identified</p>
Minimise the risk of identifying issues on go live			Partially	<p>Test assisted to identify issues to address prior to go live</p> <p>Functionality not yet correct and ready for go live – more testing is required</p>

Client Feedback – Key Themes



NOTE: Not all client feedback forms have been received yet – some forms missing for the first and second dress rehearsals. Kindly ensure these are submitted before 15 Dec 2017. (Letter to be sent to CEOs and Compliance Officers during week of 18 Dec 2017.)

- Feedback provided in the first dress rehearsal briefing session held 23 Nov provided valuable guidance
- Still concerned there are software front end functional issues - client solutions not ready for go live yet
- Was useful to better understand the more complex ITaC environment and identify where their shortcomings are
- Some Trading Members are still not able to finalise Software Provider choices due to functional issues identified and therefore were not able to test full functionality – much more testing required
- Clearing members are behind schedule due to late delivery of fully functional clearing system and their chosen system did not work or meet current requirements
- Certain clients experienced issues with password reset functionality of their chosen solutions – need to understand why some needed to be reset
- Integration in client environments not working properly or not yet tested by clients
- Demo/training sessions held by software providers with clients prior to dress rehearsal assisted with navigation of front-ends during the dress rehearsal
- Not all functionality delivered in client front-end solutions so full testing could not be done
- Trading Members have not received confirmation from Clearing Members how current processes and reporting will be impacted/changed

Client Feedback – Key Themes



- Certain clients experienced issues with Trader and Trader Groups
 - Configuration on their front ends – most were resolved on the day and clients continued testing, some never managed to resolve issues
 - Trader/Trader Group functionality and set-up within certain front-end solutions does not yet support client requirements to restrict access/view capability/controls within a firm. Members need to engage software providers on this more.
- Lack of knowledge
 - New Trading Model and Deal management, Commissions and Clearing process
 - New Trade Reporting process and related rules for trade cancellations of the JSE and how this functionality is implemented in the various front-ends
 - Trade reporting functionality in some front-ends still not working correctly
- Request for more testing time and additional dress rehearsals
- Market maker software not yet tested
- JSE support to clients was more responsive but functional knowledge of issues can be improved
- Communication from JSE
 - More JSE website communication updates would be better
 - Pre dress rehearsal communications received from multiple JSE sources therefore clients overwhelmed – JSE to consolidate communication source to client
 - Buddy support to clients worked better both internally and externally – clients happy with follow-up calls
 - Prompt assistance to queries especially password resets

Software Provider Feedback – Key Themes



- Intra-day instrument creation - JSE solution to download updated IDP Reference Data intraday to receive all instrument data not efficient enough – JSE investigating
- Branch versus Trader Group functionality constraint to be addressed – various options being considered and consultation with clients and software providers to follow
- Trade Report testing – JSE to coordinate test across the different software provider solutions to verify that accept/reject/cancel processes work in all of the different front end solutions

Room for Improvement - JSE



- Implement pass/fail criteria per member firm for future Mandatory Dress Rehearsals and Mandatory Clearing Member Testing
- Enforce use of checklists for functionality readiness and sign off
- Enforce receipt of dress rehearsal feedback – some feedback still outstanding
- Migrate additional client accounts for tests – process followed in second dress rehearsal was much better
- Market readiness is being tracked on an individual basis and more regular checkpoints with all clients
- Additional SME support for clients in CSC – support was more responsive however some pockets of knowledge still need to be improved to ensure more effective support
- JSE will request formal list of known issues and action plans from all software providers/shared infrastructure providers and track closure
- Full audits conducted with software providers and host-to-host clients on technical enablements and Firm/TraderIDs ensured that limited connectivity issues were experienced
- JSE to confirm with clients API/DMA Trader IDs to be migrated to new systems – to be discussed in one on one consultation with clients in early 2018
- Further education sessions required across various topics – mandatory participation
- Trade Report testing – JSE to coordinate test across the different software provider solutions to verify accept/reject/cancel processes work
- Unpack disaster recovery options of the various software provider front-ends
- JSA/JDA one on one consultation sessions to be held with clients
- Fees – 2018 price lists available and formal notice on data fees for Equity Derivatives & Currency Derivative markets to be published before 22 Dec 2017

Room for Improvement - Clients



- ***Clients not fully prepared*** – create a checklist of all the functionality your business is dependent on - **ONLY YOU know how your business operates and are responsible to ensure you can continue to operate post Nutron**
- Read the business functional documents and guidance notes available to understanding new systems
- Engage with your clearing member to understand how ITaC changes your current interactions and dependencies
- Take ownership of your requirements to ensure that software providers/shared infrastructure providers deliver accordingly - it is your responsibility
- Conduct a full impact and dependency analysis – URGENT that you complete this ASAP
- Current website spreadsheets and reports are changing fundamentally – **have you assessed how this impacts your business?**
- Engage and communicate to your direct clients on how ITaC impacts them
- Review your current business processes and define how they will/must change as a result of ITaC
- Indicate any additional practical support mechanisms required from the JSE for ITaC readiness
- Verify trader group and branch requirements and ensure capability to manage access within front-ends for your firm
- Ensure all traders actively participate in testing and signoff of new frontends and related requirements – especially training offered by your software providers
- Enforce participation of correct resources in all ITaC sessions especially training/education sessions either via webinar or on site
- Ensure accurate updated ITaC contact information is given to JSE to ensure right people are included in communications
- Keep track of all actions in the event of a problem to assist with troubleshooting and to recreate the issue
- Work with us - ask questions and notify JSE of education requirements
- **Continue the open and honest feedback – its helps us to improve**

ITaC – What is Changing



**EVERYTHING IS
CHANGING...**

ITaC High Level Impact Summary

Trading



NEW

- Connectivity and bandwidth requirements
- JSE Services Agreement (JSA) for connectivity to Production and Customer Test Service (CTS) services
- Intra-day risk monitoring including exposure thresholds
- Real time Drop Copy feed “Copy to” functionality of all orders and trades
- Real time Post Trade feed of all trades
- Enhanced trading functionality
 - Intra-Day Trading Session Updates
 - Pause session
 - Off book and On Book Trades
 - Quotes for Market Makers
 - Circuit breakers - Dynamic and Static circuit breakers trigger Volatility Auctions
- Reference Data
 - Enhanced Instrument Identification codes including ISIN and Unique Numeric ID
 - Instrument mapping between old and new instrument codes - four character code will not be allocated to any new instruments that are listed or that are created as a result of corporate actions
 - Firm and trader identification codes
 - Enriched reference data files available via file transfer/download
- EDM only – intraday creation of anyday instruments

CHANGED

- Enhanced order types and ability to allow orders to live for more than one day
- Enhanced Stop and Stop Limit and Time in Force functionality
- Firm Login versus Trader login
- More specific Off Book trade reporting functionality with special trade types
- Improved consistent latency and performance throughput
- Dynamic Intraday auto-generation of option Strikes
- Authentication and access management managed via in-house front ends
- Enhanced trade cancellation and price adjust levels
- Indicative Auction Information published real-time during auction periods
- Multicast Protocol for all Market Data including via JSE London PoP
- Real time statistics and full market depth as well as top of book published real-time
- Data Agreements for new Trading and Information Subscriptions

DECOMMISSIONED

- NUTRON front-end to be decommissioned by JSE – clients to find replacement front-ends by engaging directly with software providers
- EDM Only
 - Price band limits for On Book central order book trading no longer apply
 - Dividend Future will no longer exist as the Dividend Neutral contract will now be “one” contract and the Journal transaction will be processed on this contract
- Global Market connectivity migrated from Equity Derivatives to Commodity Derivatives market in July 2017

ITaC High Level Impact Summary

Market Data



NEW

- Connectivity and bandwidth requirements
- JSE Services Agreement (JSA) for connectivity to Production and Customer Test Service (CTS) services

CHANGED

- JSE Data Agreement/schedules to be signed
 - all data distributors including Shared Infrastructure providers
- Market Data fees
- Non Live Market Data
 - Fundamental changes to Non Live Market Data
 - FX data will move from being provided via IRC Data Records to new set of FX Data Records
 - IR Derivatives data will continue to be provided via existing IRD Data Records
 - 16 EDM Data Records will be made available
 - 13 FX Data Records will be made available
- Web Reports
 - A set of Web Reports will continue to be published on JSE website for General Public viewing
 - Web reports will be provided in PDF form and most will be provided at midnight
 - Web Reports will have same fields and same fields sequence as corresponding Data Records
 - 10 EDM Web reports will be provided
 - 9 FX Web Reports will be provided

DECOMMISSIONED

- EDM and FX Non Live Market Data via NUTRON front-end to be decommissioned by JSE – clients to find replacement front-ends by engaging directly with software providers and review new non-live data products available
- 2 current EDM Data Records will be discontinued
- 5 current EDM Web Reports will be discontinued
- 5 current FX Web Reports will be discontinued

ITaC High Level Impact Summary

Post-trade Deal Management and Clearing



NEW

- Connectivity (to trading system for on behalf activity) and Bandwidth requirements
- JSE Services Agreement (JSA) for connectivity to JSE production and Customer Test Service (CTS) services.
- JSE Data Agreement to access public market data
- Deal management
 - Commissions functionality to replace "Take-a-Turn"
- Securities and FX collateral service that allows participants to pledge securities as collateral
- Intra-day risk monitoring service for real-time monitoring of risk including exposure thresholds and alerts

CHANGED

- JSE Rules and Directives relating to new, changed and removed services
- Reference Data
 - Trading Member codes are being consolidated
 - Instruments codes
 - Dividend neutral contract positions to be held directly in dividend neutral contract
 - Sub accounts – new House suspense account (error account)
- Single end-of-day run across all markets with a 2-step clearing member balancing process
- EOD re-run process change
- Automated confirmation of balancing
- Collateral management part of the EOD process.
- Inclusion of pledged securities collateral information in BDA
- JSPAN Margining Methodology changes
- Pre-trade risk controls changes with some controls shifting to trading front-ends and some new controls in the Trading system
- Non-validation of accounts on trading system
- Price bands changes
- Automation of corporate actions

DECOMMISSIONED

- Market Notices will no longer be issued for corporate action changes however information on treatment of derivatives positions as a result of corporate actions will be available on JSE website
- Global Market connectivity migrated from Equity Derivatives to Commodity Derivatives market – Completed earlier in 2017
- NUTRON front-end to be decommissioned by JSE – clients to find replacement front-ends by engaging directly with software providers



ITaC Project Timeline and Key Dates

Leanne Parsons

Client Feedback and Consultation



- MiFID II go live scheduled for 3 Jan 2018 and has impacted some clients ito readiness!
- Dress rehearsal feedback from clients and JSE observations, sadly reflect that members are not ready and have requested additional functional testing opportunities
- Clearing members specifically escalated functional and readiness concerns especially of their chosen software provider to the JSE pre and post the second dress rehearsal. The JSE engaged clearing members and their software provider on the readiness concerns, software quality, mandatory clearing member testing timelines and project go-live timelines

Mandatory Clearing Member Testing



- A revised approach to the Mandatory Clearing Member Testing (MCMT) was agreed:
 - More but shorter cycles for MCMT followed by planned code fix periods
 - Regular checkpoints between each cycle to confirm readiness to progress
 - Weekly status meetings to be held (already in progress)
 - Include additional participants at various stages of MCMT
 - Trading members across each of the other software providers (nominate subset of trading members to participate and to test full functionality)
 - Clearing member clients – reports to be provided to clearing member clients to ensure end to end testing sign off
 - CSDPs for collateral management (still need to close out on scope, approach & sign off)
 - Detailed issue lists and activity plan per clearing member to be tracked
- Start of MCMT is dependent on:
 - All known issues and outstanding functionality in current clearing member software to be delivered in the next code update prior to start of MCMT
- **NOTE:** JSE will facilitate user acceptance testing for Non Live Market Data subscribers in parallel to MCMT exercise – details to follow

ITaC MCMT Revised Timeline & Key Dates



Date	Each milestone is subject to success of prior milestones
Mandatory Clearing Member Testing (MCMT)	
15 Jan - 19 Jan 2018	Final Clearing Member code rollout
22 Jan – 26 Jan 2018	Unscripted testing for Clearing Members
29 Jan – 09 Feb 2018	MCMT Cycle 1
12 Feb – 16 Feb 2018	Code fix and deploy
19 Feb – 02 Mar 2018	MCMT Cycle 2
05 Mar– 09 Mar 2018	Code fix and deploy
12 Mar – 16 Mar 2018	MCMT Cycle 3A *
19 Mar – 23 Mar 2018	MCMT Cycle 3B **
26 Mar– 29 Mar 2018	Code fix and deploy
30 Mar – 02 Apr 2018	Easter
03 Apr – 13 Apr 2018	MCMT Cycle 4
16 Apr – 20 Apr 2018	Code fix and deploy
23 Apr – 04 May 2018	MCMT Cycle 5 (if necessary)

* 15 Mar – EDM FCO

** 19 Mar - CMD, FX/IDX FCO

20 Mar – JIBAR Futures FCO

21 Mar – Public Holiday

22 Mar – CMD Physical Last Trading Day

ITaC Revised Timeline & Key Dates



Date	Milestone
Production Services and Revised Targeted Go-Live Date	
24 Mar 2018	Mandatory Market Dress Rehearsal 3
14 Apr 2018	Mandatory Market Dress Rehearsal 4
12 May 2018	Final cut-over activities with Mandatory Testing
14 May 2018	Targeted Go Live
28 May 2018	Go Live Contingency 1 With Mandatory Testing on 26 May 2018
11 Jun 2018	Go Live Contingency 2 With Mandatory Testing on 9 Jun 2018

- Considering Participant Test Weekends (PTWs) to all for additional testing by clients however considerations in progress:
 - Standalone Trading, Information and RTC versus
 - Integrated Trading, Information and RTC
 - JSE early deployment opportunities being considered as our code is ready

Questions?

JSE



Please refer all queries to the
JSE Client Service Centre (CSC)



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