Technical Working Group
23 June 2016

Agenda

Project 1a - Equity Market Enhancements (EME) and Upgrade

- Trading Conformance Requirements and Expectations
  - Conformance Documentation & Timeline
  - Changes to Conformance as a Result of EME
- Dress Rehearsal Overview and Expectations
  - Dress Rehearsal Timeline
  - Dress Rehearsal Participation and Test Requirements
- FIX Trading Gateway Changes
- Changes to JSE Directives and Timeline

Project 1b, c – Equity Derivatives and Currency Derivatives Markets

- Customer Test Service (CTS) Update
- Clearing Specifications Naming Standards Change
- Software Provider Showcase Day Update

- Questions

Integrated Trading and Clearing Project Timeline

- The programme consists of 2 Projects

  - **Project 1:**

    - 1a: Equity Market Enhancements (EME) and upgrade

      - Go live Monday, 26 September 2016 (dependent on T+3)

    - 1b: Equity Derivatives Market

      - Targeting Q2/3 2017

    - 1c: Currency Derivatives Market

      - Targeting 2 months after 1b

- **Project 2:** Commodity Derivatives Market, Interest Rate Derivatives and Bonds Markets

Trading, Clearing and Information Systems
All Markets – High-level

Trading and Information System
Current Equity Market
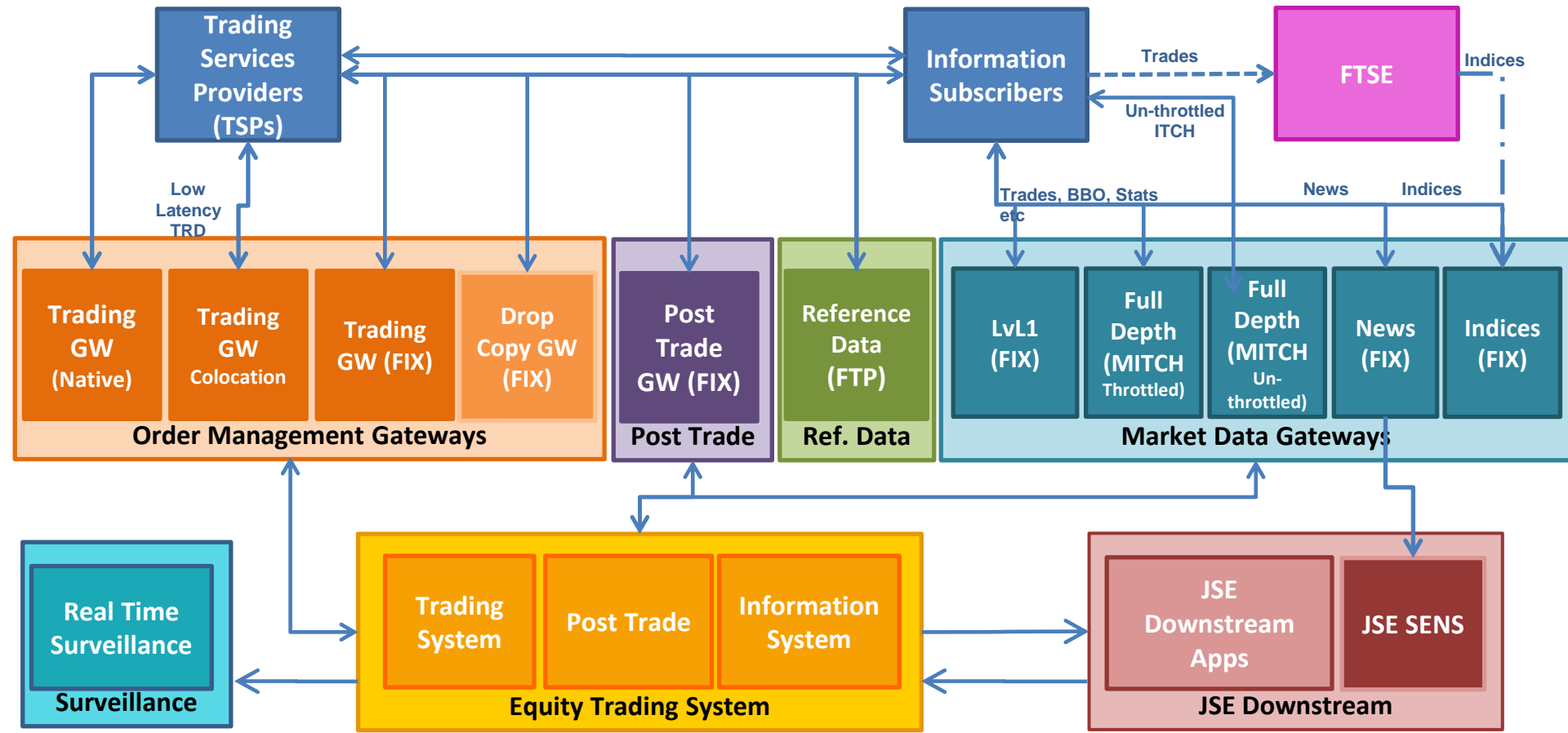
Trading and Information Systems
High Level Proposed Derivatives Solution
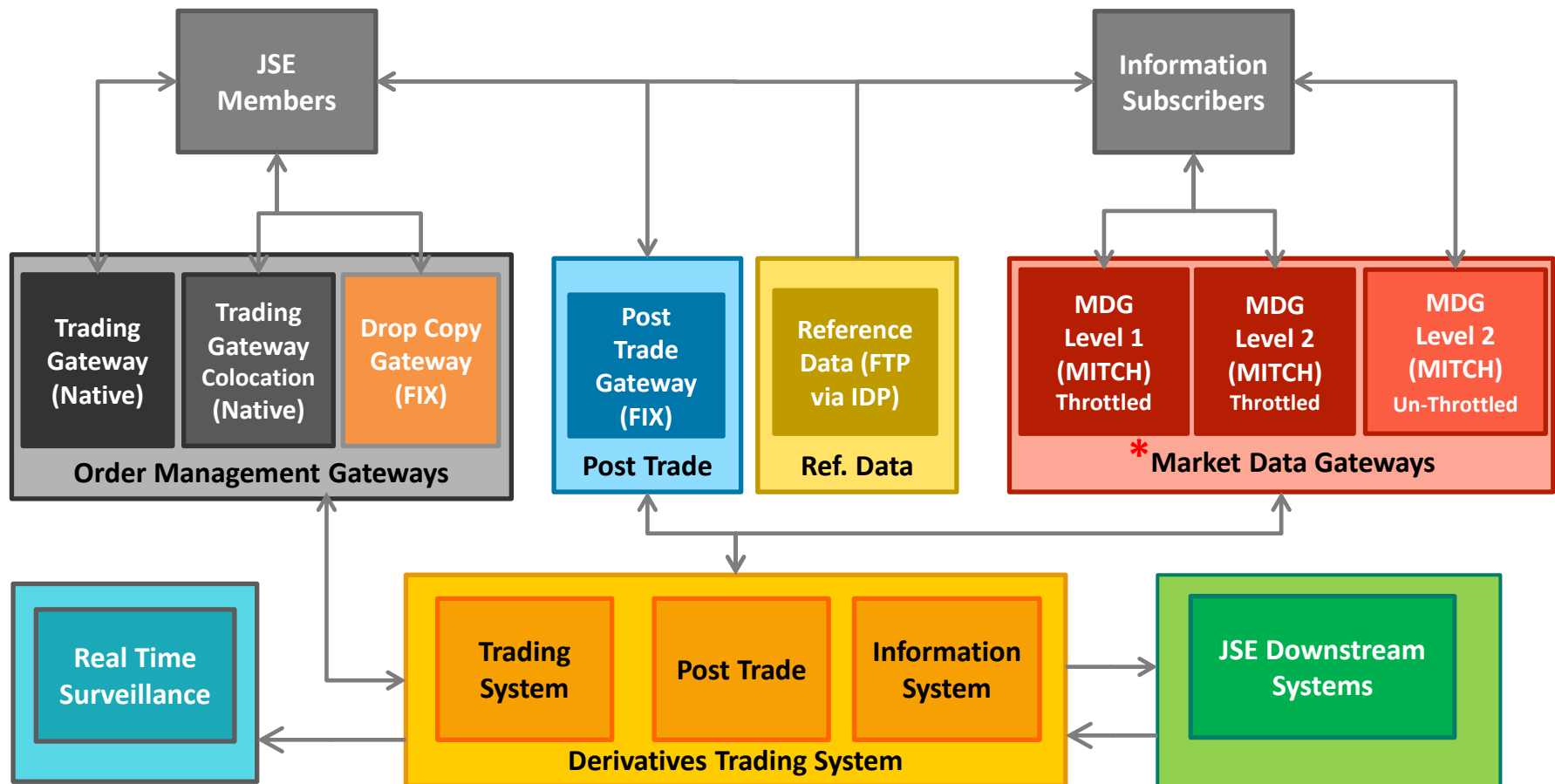
- There will be a set of Market Data Gateways for Equity Derivatives and a set of Gateways for Currency Derivatives
- Additional market data gateways will be introduced at a later stage for Commodity Derivatives.
- Interest Rate market data will be disseminated via the same gateways as Currency Derivatives

Post-trade Interfaces
High Level Proposed Solution

JSE

Member Domain

Member Deal Management, Clearing & Back Office

Deal Mgmt and Clearing Front-end Software/API
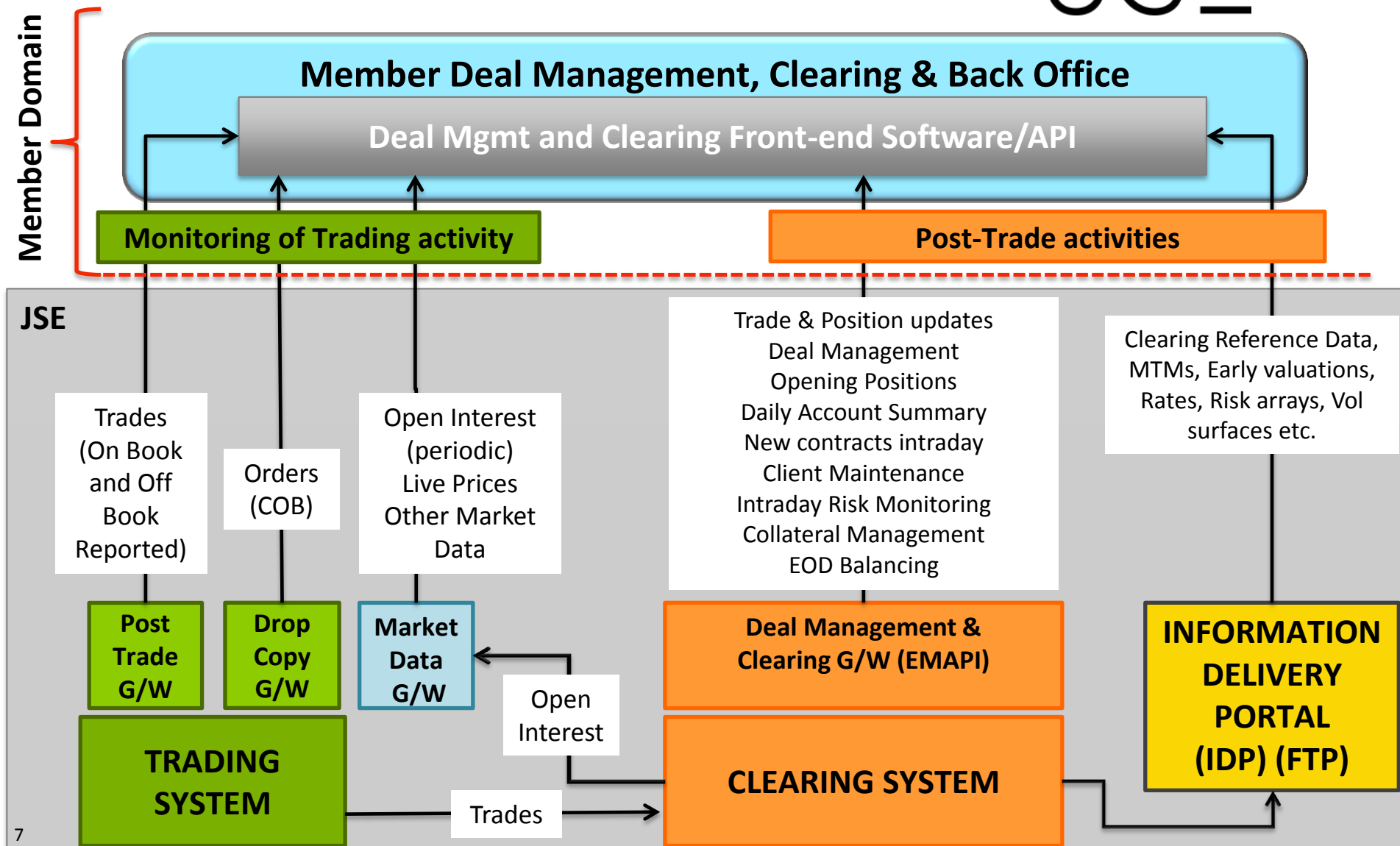
Monitoring of Trading activity

Post-Trade activities

JSE

Trades
(On Book
and Off
Book
Reported)

Orders
(COB)

Open Interest
(periodic)
Live Prices
Other Market
Data

Trade & Position updates
Deal Management
Opening Positions
Daily Account Summary
New contracts intraday
Client Maintenance
Intraday Risk Monitoring
Collateral Management
EOD Balancing

Clearing Reference Data,
MTMs, Early valuations,
Rates, Risk arrays, Vol
surfaces etc.

**Post
Trade
G/W**

**Drop
Copy
G/W**

**Market
Data
G/W**

**Deal Management &
Clearing G/W (EMAPI)**

**INFORMATION
DELIVERY
PORTAL
(IDP) (FTP)**

Open
Interest

**TRADING
SYSTEM**

Trades

CLEARING SYSTEM

Summary of Clearing Functionality

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

Margin methodologies

- 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

Legend

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

2016 Technical Working Group (TWG) Schedule

Date	Time	Status
Mon, 22 February 2016	14h00 – 15h30 SAST	Cmpl
Thurs, 10 March 2016 (CT)	11h00 – 13h00 SAST	Cmpl Equity Market presentation Cape Town
Thurs, 21 April 2016	11h00 – 13h00 SAST	Cmpl
Wed, 25 May 2016	11h00 – 13h00 SAST	Cmpl
Thurs, 9 June 2016 (CT)	11h00 – 13h00 SAST	Cmpl
Thurs, 23 June 2016	11h00 – 13h00 SAST	In Progress
Thurs, 21 July 2016	11h00 – 13h00 SAST	To revise due to T3 go live
Thurs, 25 August 2016	11h00 – 13h00 SAST	
Wed, 7 September 2016 (CT)	11h00 – 13h00 SAST	TBC
Thurs, 29 September 2016	11h00 – 13h00 SAST	
Wed, 26 October 2016	11h00 – 13h00 SAST	
Wed, 23 November 2016	11h00 – 13h00 SAST	

Integrated Trading and Clearing (ITaC) Project 1a

Equity Market Enhancements (EME) and Upgrade

Trading Conformance Requirements and Expectations

Kim Hoosen

Trading Conformance Requirements and Expectations

JSE

- Conformance is required only for Gateways that have been impacted by the changes being introduced with the Equity Market Enhancements (EME) and the Upgrade to the Trading and Information solution to be ready for the ITaC Derivatives releases which follow

- Equity Market **conformance** must be completed prior to the 1st Mandatory Dress Rehearsal and therefore the **cut-off date** for **ITaC Project 1a** is **Friday, 5 August 2016**
    - JSE recommend clients perform full conformance due to the common code change to the trading and information systems by the JSE
    - JSE Conformance guide and report have been updated and published to the ITaC website page to assist those clients preparing for conformance

ITaC INTEGRATE ACCELERATE GROW

Trading Conformance Requirements and Expectations

Mandatory Minimum Conformance Requirements

- Native Trading Gateway - *New Order Message* due to the change in message structure

  - Pre-requisite: Existing base orders
  - New Order (Any order type)
  - Order Amendment
  - Order Execution
  - Order Cancellation
  - Trade Confirmation Report (Post Trade Gateway)

Trading Conformance Requirements and Expectations

Optional Conformance Requirements

- Native Trading Gateway - *New Order Message*

    - Order Types: Pegged and Pegged Limit Orders

    - Pre-requisite: Existing base orders, Minimum Reserve Size (MRS)

    - New Order

    - Order Amendment

    - Order Execution

    - Order Cancellation

    - Replay Service Request

    - Result: Confirmation of Execution Reports

Trading Conformance Requirements and Expectations

JSE

Optional Conformance Requirements

- Native Trading Gateway - *New Order Message*

    - New TIF: EOD Volume Auction

    - Pre-requisite: Executable volume, MRS

    - New Order

    - Order Amendment

    - Order Execution

    - Order Cancellation

    - Replay Service Request

    - Result: Confirmation of Execution Reports

ITaC INTEGRATE ACCELERATE GROW

Trading & Information Conformance Requirements and Expectations

Optional Conformance Requirements

- Native Trading Gateway - *New Order Cross Message*
  - Pre-requisite: BBO
  - New Order
  - Result: Confirmation of Execution Reports

- Full depth MITCH Gateway – *New Extended Statistics Message*
  - Pre-requisite: Existing trades
  - Replay Message request where any of the below has changed:
    - High Price (On Book/Off Book)
    - Low Price (On Book/Off Book)
    - Volume (On Book/Off Book)
    - Number of Trades (On Book/Off Book)
    - VWAP(On Book/Off Book)

Dress Rehearsal Overview and Expectations

Kim Hoosen

Dress Rehearsal Overview and Expectations

Overview

- JSE **Internal** Dress Rehearsal – Saturday, 30 July 2016
    - JSE will conduct internal testing in the production environment prior to the market facing dress rehearsals to prove the deployment approach as well as to ensure all downstream integration and interfaces within JSE function correctly
    - Clients who wish to participate in this test are welcome to contact us

- Mandatory Market facing Dress Rehearsals
    - Saturday, 13 August 2016 and Saturday, 3 September 2016
    - Low intensity functional dress rehearsals
    - Due to the nature of the upgrade to the Equity Trading & Information solution, we recommend that Clients regression test all applications currently used in Production (via Client Access Network and/or Colocation environments)
    - A normal trading day will be simulated however with shorter trading sessions (between 08:00 – 13:00)
    - Detailed plan and checklists will be issued to clients in due course during July
    - No network changes are required to client networks
    - No enablement changes are required

Dress Rehearsal Overview and Expectations

Mandatory Requirements

- Minimum 1 Interface User Id (CompID) per trading and information gateway
  - Native or FIX Trading Gateways
  - Drop Copy and Post Trade Gateways
  - Market Data Gateways
  - Order submission and order management to test changes to New Order message
- Replay message request for the MITCH market data gateway changes

Optional Requirements

- Submission of orders and order management to test new EME functionality
  - Cross Orders (XT trade type)
  - Pegged Orders
  - CPX Session for ZA02, ZA03 and ZA06
  - Orders with new Time In Force (TIF) for participation in EOD Volume Auction
- Processing of the new trade types via market data Gateways XT and VT
- Replay and Recovery message requests for all Gateways

FIX Trading Gateway Changes

Kim Hoosen

FIX Trading Gateway Changes

JSE

- EME functionality has been extended to the FIX Trading Gateway and will go live with ITaC project 1a on Monday, 26 September 2016

Enhancement	Fix Trading Gateway
Central Order Book Cross	New Order Cross message New Enums added to Execution report
Pegged Orders	New Field and Enums added to New Order Single Message New Enums added to Execution report
EOD Volume Auction	New Enums added to New Order Single Message New Enums added to Execution report

- FIX Trading Gateway changes were deployed to the CTS environment in May and are now available for testing and updated specs were published

- JSE internal system integration testing for ITaC project 1a is underway and progressing well

ITaC INTEGRATE ACCELERATE GROW

Changes to JSE Directives and Timeline

Kim Hoosen

Changes to JSE Directives and Timeline
New Trading Sessions

NEW Closing Price Cross Trading Session:

- New trading session after publication of the closing price

- Affects trading segments ZA02, ZA03 and ZA06

- Lasts 5 minutes

- Applies to Normal Days, Early Close Days and Futures Close Out Days

- Changes to be made to *JSE Equities Directive BU* – Trading sessions and times

- Will now be the same as is already in place for trading segment ZA01

NEW End of Day (EOD) Volume Auction Trading Session:

- New trading session after Closing Price Cross Trading Session

- Affects trading segments ZA01, ZA02, ZA03 and ZA06

- Lasts 5 minutes

- Applies to Normal Days, Early Close Days and Futures Close Out Days

- Changes to be made to *JSE Equities Directive BU* – Trading sessions and times

Changes to JSE Directives and Timeline
Two New Trade Types

NEW Trade Type - Cross Trade (XT):

- New On Book Trade Type
- An XT trades results from the submission of a Cross Order
- Price must be within visible BBO
- No impact on other orders
- Members may enter trades that have been entered into within a single firm on the central order book
- New Trade Type Code to be inserted in *JSE Equities Directive EL* – Ring-fencing schedule

Transaction Description	Trade Type Code	Settlement Type Code	Risk Managed by the JSE	Ring-Fenced
Cross Trade	XT	MB	Yes	No

Changes to JSE Directives and Timeline
Two New Trade Types

NEW Trade Type - Volume Auction Trade (VT):

- New On Book Trade Type
- Session is triggered by the Closing Price Cross Trading Session
- Minimum Reserve Size (MRS) will be validated
- Orders are hidden
- No impact on other orders
- Large orders uncrossed
- New Trade Type Code to be inserted in *JSE Equities Directive EL* – Ring fencing schedule

Transaction Description	Trade Type Code	Settlement Type Code	Risk Managed by the JSE	Ring-Fenced
Volume Auction Trade	VT	MB	Yes	No

Changes to JSE Directives and Timeline
Process for Amendment

Process for amendment of the JSE Equities Rules and Directives

- The inclusion of the new trading sessions and trade types necessitate changes to the *Equities Directives* only – there are no changes to the *Equities Rules*
- Directive Changes will be completed by end July / early August, for go-live in September

- The approval process as set out in Equities Rule 2.60 in respect of amendments to the Equities Directives will be followed:
  - Proposed amendments will be presented to and adopted by the JSE Executive Committee
  - Thereafter communicated to Members by way of JSE Market Notice
  - Effective date selected – in the event that no comments or objections are received
  - Ten days are provided for comment or objection
  - Comments and objections considered and answered
  - Consequential amendments made if necessary
  - New effective date communicated

Integrated Trading and Clearing (ITaC) Project 1b, c

Equity Derivatives and Currency Derivatives Markets

Customer Test Service (CTS) Update – for ITaC Project 1b, c

Sandra Borrageiro

Customer Test Service (CTS) Update
ITaC Project 1b, c

- Trading model configuration for the Equity Derivatives and Currency Derivatives markets will be implemented into the CTS environment on Monday, 27 June 2016 – work is in progress to finalise market configuration

- Derivatives trading and information functionality testing can therefore commence from 27 June

- Derivatives Clearing and deal management functionality will be introduced into the CTS environment during Q3 2016

- Services documentation for trading, information and deal management and clearing have been published on the ITaC webpage

- Initially a sample set of instrument (futures, options and delta options) will be available in CTS with default set of expiries per instrument – all instruments will be loaded at a later stage

- Volume 9 Reference Data Management has been update with the new file layouts for trading reference data

- Work is in progress to prepare the required client CSV reference data files via the Information Delivery Portal (IDP)

- No CTS fees will be charged for access to the new ITaC CTS environment until go-live of the project

Clearing Specifications Naming Standards Change

Sandra Borrageiro

Clearing Specifications
Naming Standards Change

- The **PT** prefix has been added to the volume number of the post-trade Services Documentation to differentiate these from the trading Services Documentation

- This is to assist the support teams to immediately identify the service for which queries have been raised

Current Name	New Name
Volume 01 – Post-trade EMAPI Common	Volume **PT**01 - Post-trade EMAPI Common
Volume 02 – Post-trade EMAPI Clearing	Volume **PT**02 - Post-trade EMAPI Clearing
Volume 03 – Post-trade Margin Methodology Specifications	Volume **PT**03 – Post-trade Margin Methodology Specifications

Software Provider Showcase Update

Sandra Borrageiro

Software Provider Showcase Day Update

- As requested by software providers to ensure they have sufficient time to present working prototypes, the JSE is busy reviewing when to hold the showcase day

- Consultation letter to software providers with revised details and the proposed high level approach is anticipated to be issued before end of June

- **Key focus of the showcase day** will be for software providers to present their replacement solutions for **trading, deal management and clearing software** that will be available to clients as the **legacy NUTRON frontend will no longer be provided** to Derivatives Markets clients as these markets migrate to the new JSE trading and clearing solutions

- In the interim, the JSE will consult with software providers to provide further clarity on which markets and services they intend to offer i.e. update the current software list published available on the ITaC website

- As soon as a revised day is agreed, we will issue a revised save the date and formal invitation will be published to clients

Questions?

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This presentation will be available post this session at the following link:- https://www.jse.co.za/services/itac