Johannesburg Stock Exchange

JSE Trading and Information Solution

JSE Guidance Note
Volume 201 – Guide to JSE Trading and Information Conformance

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1   DOCUMENT CONTROL

1.1   Table of Contents

1.2   Document Information

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1.3   Revision History

Date	Version	Sections	Description
27 March 2012	1.00	All	Initial Draft
28 March 2012	1.01	3&4	Revision for Conformance test scenarios
11 April 2012	1.02	4	Moved Instrument suspension from Trading to Information conformance section
13 April 2012	1.03	4	Corrected test scenario numbering
24 April 2012	1.04	4.2.4	Corrected the scenario description to align to requested results
25 April 2012	1.05	4	Corrected "unsuspend" wording in scenarios G1-001.4
1 September 2014	1.06	4	Additional Information Conformance confirming republished closing price. Introduction of Exclude Hidden Limit Orders, Same day cancellation of On Book Trade and News message on Trading Conformance. Change to General Conformance testing and removal of some FIX Session Handling test cases
18 April 2016	3.0	4	Updates to Equity Market functionality incorporated to include Cross Order functionality, Pegged Order enhancement and EOD Volume Auction. Addition of new Extended Statistics messages
4 July 2016	3.01	4.2	Removed duplicate scenario I13
24 February 2017	3.02	All	Inclusion of Derivative Markets Conformance test scenarios
30 August 2019	3.03	4.3.3 4.16	Removal of EHL Orders. Inclusion of Iceberg Orders Conformance test scenarios for Equity Market

1.4   References

None

1.5 Contact Details

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2   OVERVIEW

The purpose of this document is to provide clients with all the essential and detailed information needed to get the most out of the JSE Conformance Test Service introduced as part of the JSE Trading and Information solution for the Equity Market, Currency Derivatives and Equity Derivatives Markets.

The JSE Conformance Test Service allows clients to prove the interface between their systems and the JSE's Trading and Information systems. The tests cover a range of functional areas and ultimately prove client systems can interact and behave as specified with the core architecture. Some of the events tested are frequently experienced during the trading day, while others are less frequently experienced.

The following documentation should be read in conjunction to this volume.

- Volume 00D – Trading and information Overview for Derivatives Markets

- Volume 00E – Trading and information Overview for Equity Market

3   SERVICE OVERVIEW

Clients are to conform all software applications that they wish to connect to the production environment. The self-conformance policy has been introduced in order to facilitate the conformance process. Mandatory testing is required for all Mandatory functions to ensure they comply with the Services Documentation.

Software applications requiring conformance include all interfaces that will directly connect to the JSE Trading and Information services for the Equity Market, Currency Derivatives and Equity Derivatives Markets.

3.1   Conformance Test Environment

Conformance testing will be conducted in the existing Customer Testing Service (CTS) environment. Prior to the commencement of the conformance test service, the JSE completes a rigorous readiness assessment on its central systems and networks to ensure that customer testing is conducted in a stable environment. Clients are encouraged to complete a similar self-assessment so that they can optimise their allocated test sessions, and do not disrupt testing for other clients. The JSE will verify that a client is ready for the conformance test service during the technical readiness test to CTS, which is mandatory for all participating clients.

3.2   Mandatory Testing for Trading Interfaces

The JSE Trading and Market solution for the Equity Market, Currency Derivatives and Equity Derivatives Markets consists of **five interfaces for Trading** as listed below. Clients must test against each of the interfaces they wish to access in production:

- Basic Native Trading Interface (for Equity Market)

- Enhanced Native Trading Interface (for all Derivatives Markets only)

- FIX 5.0 SP2 Trading Interface (for Equity Market)

- FIX 5.0 SP2 Post Trade Interface – includes OTBD (Common across all markets)

- FIX 5.0 SP2 Drop Copy Interface – includes OOBD (Common across all markets)

The Post Trade Interface is required to submit Trade Reports to the system and is mandatory for all trading applications operated by Trading Service Participants (TSPs), (i.e. members) of the JSE. This includes the Own Trade Book Download functionality (OTDB) of the Post Trade Gateway.

In addition, the Own Order Book Download functionality (OODB) of the Drop Copy Gateway is mandatory for all trading solutions operated by Trading Service Participants (TSPs), (i.e. members) of the JSE.

The OTBD and OOBD provide TSPs with the ability to recover all executed Trades and Open Orders in the event of a site failure at the JSE which may result in the failover to the JSE Remote DR Site.

3.3 Mandatory Testing for Information Interfaces

The JSE Trading and Market Data solution consists of **two interfaces for information** i.e. Market Data as listed below. Clients must test against each of these interfaces:

- Replay Service
- Recovery Service

Clients must prove that their software applications conform to the mandatory Replay and Recovery services as per the Services Documentation.

The JSE is investigating and automated procedure required to offering the following to clients in the CTS environment on a regular basis:

- The provision of a gap in the market data at a scheduled time daily and

3.4 Reference Data for Conformance tests

For conformance, clients must use the Reference Data FTP flat-file as provided for the CTS environment. This file is currently available for download on the JSE Information Delivery Portal (IDP) site via FTP.

For production and the CTS environment, the Reference Data FTP flat-files will be available for download via the JSE Information Delivery Portal (IDP). Clients must test against the JSE IDP service prior to go live.

3.5 High Volume Testing

The JSE is investigating the possibility of offering the following to clients:

- The provision of a High Volume Information service/test slot window to facilitate the testing of a client's applications to cope with a large increase in the volume and output rate at which market data is published

3.6 Conformance Test Analysts (CTAs)

The JSE will assign a Customer Test Analyst (CTA) to assist clients with specific parts of their conformance tests and to produce the test reports at the end of each test.

Clients will be able to perform the majority of their testing independently and only contact the CTA when they are satisfied with their test run results and require CTA involvement to perform either a support function and/or run the end of test report.

CTAs will be able to perform the following support functions:

- Suspend an Instrument

- Suspend an Interface User ID (CompID) – this test should only be conducted once a client is satisfied that all required self-conformance test scenarios are successful.

- On Behalf of Actions for Trading Interfaces

  o Delete orders on the clients behalf

  o Submit trade reports on the clients behalf

  o Cancel a trade on the clients behalf

  o Generate a client-specific private News announcement

- CTA will run the end of Conformance test reports

3.7   Conformance Test Process

The conformance test process will be as follows:

1. Clients must complete and submit the Conformance Test Report prior to conformance. This report outlines the functions supported by the software application being tested and will confirm the scope of the conformance test required.

2. Once the Conformance Test Report has been agreed with the JSE, clients can book a conformance slot.

3. Clients must book a conformance slot with the JSE Client Services Centre team.

4. Conformance test slots will be available weekly, on Tuesdays, Wednesdays and Thursdays that are business days for the JSE. I.e. should a public holiday occur on either of these days, conformance slots will not be available.

5. A booking is required to ensure a CTA is assigned to the conformance test. Clients must perform the self-conformance tests independently and only contact the CTA when they are satisfied with their test run results and require CTA involvement to perform either a support function and/or run the end of test report.

6. Clients **cannot** book more than one conformance slot per week.

7. Clients must complete all self-conformance tests within one JSE business day.

8. The conformance tests that require CTA support must be performed within JSE business hours, i.e. 07h00 – 19h00 SAST. In the event where these cannot be conducted within the same business day, the CTA will perform these with the client on the business day following the booked test slot.

9. Conformance test results will only be made available 24-48 hours after successful processing of the end of test report.

10. Clients who fail a conformance test will need to redo the full conformance test.

11. Clients must remain connected / logged in to the service throughout the conformance tests and should only disconnect if instructed to do so as part of the test. Any deviations from the test activities will result in a conformance failure.

3.8　Conformance Test Report

The conformance test report is an electronic document that can be completed by the client and returned to the JSE prior to Conformance. The client must:

1. Prior to conformance, complete and submit the Conformance Test Report to the JSE confirming the scope of functionality of the software application being tested.

2. The software application functionality must be agreed with the JSE.

3. The client can then update the agreed Conformance Test Report with the self-conformance test results and return this to the JSE as part of their conformance test.

Please refer to Customer Test Documentation Volume 202 – Conformance Test Report.

3.9　Conformance Policy

It is mandatory to conform all software applications that clients wish to connect to the production environment. Any changes made to conformed software will result in a mandatory conformance test of the changed software.

In addition, any release of new functionality by the JSE could result in mandatory conformance, however not all releases will require conformance. The JSE will confirm per release if conformance is required.

Mandatory Conformance required for any new release implemented by the JSE unless otherwise stated by the JSE. Mandatory Conformance required for any changes made to conformed software unless otherwise agreed with the JSE.

3.10　Conformance Test Pricing

Pricing information can be found by contacting the JSE Client Services Centre.

4　CONFORMANCE TEST SCENARIOS

Detailed below are tests that a client must complete successfully to pass a conformance test.

Steps within each given scenario will apply to Trading Participants, Information Subscribers or both; in each case this will be clearly indicated.

Execute each step as documented and record the results of the execution in the Conformance Test Report. Clients are responsible for including all relevant accurate information per execution step in the test report. Inaccurate information will result in a failed conformance test.

If the result of an execution step does not match the expected result, document the actual result attained in the Conformance Test Report and provide all relevant information to unique identify the execution step. E.g. Firm ID, Interface User ID, Trader Group, Trader ID, Instrument ID etc.

Do not disconnect or logoff between each step of the execution unless instructed to do so in the execution test. Failure to comply with this requirement will result in a failed conformance test.

4.1　High Level Conformance Test Summary

Test Items Required	Info. Solution	Trading Solution

INFO	**Information Conformance (Market Data)**			
I1	Market Data – Level 1 FIX/FAST Replay Service		Y	N
I2	Market Data – Indices FIX/FAST Replay Service		Y	N
I3	Market Data – Regulatory News FIX/FAST Replay Service		Y	N
I4	Market Data – Level 1 FIX/FAST Recovery Service		Y	N
I5	Market Data – Full Depth MITCH Replay Service		Y	N
I6	Market Data – Full Depth MITCH Recovery Service		Y	N
I7	Market Data – Instrument Suspension (Lvl1 & Full Depth)		Y	N
I8	Market Data – Closing Price Market Data – Instrument Suspension (Lvl1 & Full Depth)		Y	N
I9	Market Data - Full Depth MITCH and/or Level 1 Replay Service -Extended Stats Message		Y	N
I10	Market Data - Full Depth MITCH and/or Level 1 Replay Service - Cross Order		Y	N
I11	Market Data - Full Depth MITCH and/or Level 1 Replay Service - Pegged Order		Y	N
I12	Market Data - Full Depth MITCH and/or Level 1 Replay Service - Volume Auction trade		Y	N
I13	Market Data - Full Depth MITCH and/or Level 1 Replay Service – EOD Volume Auction call trade		Y	N
TRD	**Trading Conformance**			
T1	Trading - Logon		N	Y
T2	Trading – Auction Order Management		N	Y
T3	Trading – Continuous Trading Order Management		N	Y
T4	Trading - Native Trading Recovery		N	Y
T5	Post Trade – Single Sided Trade Reports		N	Y
T6	Post Trade – Dual Sided Trade Reports		N	Y
T7	Post Trade – On Book Cancellations		N	Y
T8	Post Trade – Own Trades Book Download (OTBD)		N	Y
T9	Drop Copy – Own Order Book Download (OOBD)		N	Y
T10	On Behalf of Actions (Native and FIX Trading)		N	Y
T11	Trading – Cross Order (FIX or Native, Drop Copy, Post Trade)		N	Y
T12	Trading – Pegged Order (FIX or Native, Drop Copy, Post Trade)		N	Y
T13	Trading – Pegged Limit Order (FIX or Native, Drop Copy, Post Trade)		N	Y
T14	Trading – EOD Volume Auction Uncross (FIX or Native, Drop Copy, Post Trade)		N	Y
T15	Trading - Quotes		N	Y
T16	Trading - User-Created Instruments		N	Y
T17	Trading - On Book Strategies		N	Y
T18	Post Trade - Off-Book Strategies		N	Y
T19	Trading - Calendar Spreads		N	Y
Gen	**General Conformance for all FIX Gateways**			
G1	Error Handling		Y	Y
G2	FIX Session Handling		Y	N

4.2   Information Conformance (Market Data)

4.2.1   I1, I2, I3 Market Data – Level 1 FIX/FAST Replay Service

Test Case ID:	Gateway Description	Mandatory	Self Conformance / Supported Test
I1-001 **I2-001** **I3-001**	Market Data – Level 1 FIX/FAST Replay Service (Equity Market) Market Data – Indices FIX/FAST Replay Service (All Markets) Market Data – Regulatory News FIX/FAST Replay Service (All Markets)	Y	Self Conformance per Gateway

Description:

Logon to the Replay Channel of each Gateway that you will subscribe to and send an Application Message Request to request the retransmission of a small range of messages already published on the real time (multicast channel.

Comment:

The Application Message Request must be sent within 5 seconds of a successful logon.

Activity Steps

#	Test Step	Expected Result
1.	Establish a connection and logon to the Replay service	Successful Logon
2.	Send An Application Message Request	Receive a successful Application Message Request Ack. Receive requested messages. Receive an Application Message Report to indicate completion of transmission.
3.	Record the details of the Application Message Request sent in the Conformance Test Report	ApplReqID
4.	Logout and Disconnect within 5 seconds of the transmission of the last missed message	Logout message sent by the client and connection terminated. If this is not done within the specified time, the server will send a Logout message and then break the TCP/IP connection with the client.

4.2.2 **I4 Market Data – Level 1 FIX/FAST Recovery Service**

Test Case ID:	Gateway Description	Mandatory	Self Conformance / Supported Test
I4-001	Market Data – Level 1 FIX/FAST Recovery Service (Equity Market)	Y	Self Conformance

Description:

Logon to the Recovery Channel and send a Security Definition Request Message to request the details of all active instruments and all active instruments by segment.

Comment:

The Security Definition Request Message must be sent within 5 seconds of a successful logon.

Activity Steps

#	Test Step	Expected Result
1.	Establish a connection and logon to the Recovery service	Successful Logon
2.	Send a Security Definition Request Message by segment	Receive a details of each each instrument via the Security Definition message
3.	Record the details of the Security Definition Request Message sent in the Conformance Test Report	SecurityReqID
4.	Send a Security Definition Request Message for all instruments	Receive a details of each each instrument via the Security Definition message
5.	Record the details of the Security Definition Request Message sent in the Conformance Test Report	SecurityReqID

Test Case ID:	Gateway Description	Mandatory	Self Conformance / Supported Test
I4-002	Market Data – Level 1 FIX/FAST Recovery Service (Equity Market)	Y	Self Conformance

Description:

Stay logged in and send a Market Data Request message to request a snapshot of the current order book or statistics for one or more instruments in the market data group.

Comment:

The Market Data Request message must be sent within 5 seconds of the transmission of the last successful application message.

Activity Steps

#	Test Step	Expected Result
1.	Send a Market Data Request message and request a snapshot of the current order book for multiple (2) instruments.	Receive a snapshot of the current order book for each instrument via a Market Data Snapshot (Full Refresh) message
2.	Record the details of the Market Data Request message sent in the Conformance Test Report	MDReqID
3.	Send a Market Data Request message and request a snapshot of the statistics for multiple (2) instrument.	Receive a snapshot of the statistics for each instrument via a Market Data Snapshot (Full Refresh) message
4.	Record the details of the Market Data Request message sent in the Conformance Test Report	MDReqID (262)

Test Case ID:	Gateway Description	Mandatory	Self Conformance / Supported Test
I4-003	Market Data – Level 1 FIX/FAST Recovery Service (Equity Market)	Y	Self Conformance

Description:

Stay logged in and send a Market Data Request message to request a snapshot of the current order book or statistics by segment

Comment:

The Market Data Request message must be sent within 5 seconds of the transmission of the last successful application message.

Activity Steps

#	Test Step	Expected Result
1.	Send a Market Data Request message and request a snapshot of the current order book for a segment.	Receive a snapshot of the current order book for each instrument in the segment via a Market Data Snapshot (Full Refresh) message
2.	Record the details of the Market Data Request message sent in the Conformance Test Report	MDReqID (262)
3.	Send a Market Data Request message and request a snapshot of the statistics for a segment.	Receive a snapshot of the statistics for each instrument in the segment via a Market Data Snapshot (Full Refresh) message
4.	Record the details of the Market Data Request message sent in the Conformance Test Report	MDReqID (262)

Test Case ID:	Gateway Description	Mandatory	Self Conformance / Supported Test
I4-004	Market Data – Level 1 FIX/FAST Recovery Service (Equity Market)	Y	Self Conformance

Description:

Stay logged in and send a Market Data Request message to request missed trades for one or more instruments in the market data group. Clients may also request missed trades for the instruments in the market data group that are assigned to one or more segments.

Comment:

The Market Data Request message must be sent within 5 seconds of the transmission of the last successful application message.

Activity Steps

#	Test Step	Expected Result
1.	Send a Market Data Request message for missed Trades in a specific instrument.	Receive all the trades for the specified instruments via a Market Data Snapshot (Full Refresh) message
2.	Record the details of the Market Data Request message sent in the Conformance Test Report	MDReqID (262) SecurityID(48) ProductComplex (1227)
3.	Send a Market Data Request message for missed Trades in a segment	Receive all the trades for the specified segment via a Market Data Snapshot (Full Refresh) message
4.	Record the details of the Market Data Request message sent in the Conformance Test Report	MDReqID (262)
5.	Logout and Disconnect within 5 seconds of the transmission of the last application message	Logout message sent by the client and connection terminated. If this is not done within the specified time, the server will terminate the client connection.

4.2.3   **I5 Market Data – Full Depth/Top of Book MITCH Replay Service**

Test Case ID:	Gateway Description	Mandatory	Self Conformance / Supported Test
I5-001	Market Data – Full Depth MITCH Replay Service (All Markets)	Y	Self Conformance

Description:
Logon and send Replay Request to request retransmission of a limited number (small-scale) of messages already published on the Real-Time channel.

Comment:
The Replay Request message must be sent within 5 seconds of the transmission of the last successful application message.

Activity Steps

#	Test Step	Expected Result
1.	Establish a connection and logon to the Replay service	Successful Logon
2.	Send a Replay Request message	Receive a successful Replay Response to the request. Receive requested messages.
3.	Record the details of the Replay Request message sent in the Conformance Test Report	Market Data Group First Message and Count
4.	Logout and Disconnect within 5 seconds of the transmission of the last application message	Logout message sent by the client and connection terminated. If this is not done within the specified time, the server will terminate the client connection.

4.2.4   **I6 Market Data – Full Depth/Top of Book MITCH Recovery Service**

Test Case ID:	Gateway Description	Mandatory	Self-Conformance / Supported Test
I6-001	Market Data – Full Depth MITCH Recovery Service (All Markets)	Y	Self-Conformance

Description:

Logon and send Snapshot Request to recover from a large-scale data loss (i.e. later joiner or major outage)

Comment:

The Snapshot Request message must be sent within 5 seconds of the transmission of the last successful application message.

Activity Steps

#	Test Step	Expected Result
1.	Establish a connection and logon to the Replay service	Successful Logon
2.	Send a Snapshot Request message to request details of the order book for one instrument	Receive a successful Snapshot Response to the request. Receive the disseminated series of Add Order messages Receive the Snapshot Complete message
3.	Record the details of the Snapshot Request message sent in the Conformance Test Report	Sequence Number Segment Instrument ID
4.	Send a Snapshot Request message to request a snapshot of the current order book for all instruments in a segment	Receive a successful Snapshot Response to the request. Receive the disseminated series of Add Order messages Receive the Snapshot Complete message
5.	Record the details of the Snapshot Request message sent in the Conformance Test Report	Sequence Number Segment Instrument ID
6.	Send a Snapshot Request message to request a Statistics snapshot of the all sub books for all instruments in a segment	Receive a successful Snapshot Response to the request. Receive the disseminated series of Statistics messages Receive the Snapshot Complete message
7.	Record the details of the Snapshot Request message sent in the Conformance Test Report	Sequence Number Segment Instrument ID

8.	Send a Snapshot Request message to request missed trades for all instruments in a particular segment	Receive a successful Snapshot Response to the request.
		Receive the disseminated series of Recovery Trade messages
		Receive the Snapshot Complete message
9.	Record the details of the Snapshot Request message sent in the Conformance Test Report	Sequence Number
		Segment
		Instrument ID
10.	Logout and Disconnect within 5 seconds of the transmission of the last application message	Logout message sent by the client and connection terminated.
		If this is not done within the specified time, the server will terminate the client connection.

Test Case ID:	Gateway Description	Mandatory	Self-Conformance / Supported Test
I6-002	Market Data – Top of Book MITCH Recovery Service (Derivatives Markets)	Y	Self-Conformance

Description:

Logon and send Snapshot Request to recover from a large-scale data loss (i.e. later joiner or major outage)

Comment:

The Snapshot Request message must be sent within 5 seconds of the transmission of the last successful application message.

Activity Steps

#	Test Step	Expected Result
1.	Establish a connection and logon to the Replay service	Successful Logon
2.	Send a Snapshot Request message to request details of the Top of Book for one instrument	Receive a successful Snapshot Response to the request. Receive the disseminated series of Top of Book messages Receive the Snapshot Complete message
3.	Record the details of the Snapshot Request message sent in the Conformance Test Report	Sequence Number Segment Instrument ID
4.	Send a Snapshot Request message to request details of the Top of Book per segment	Receive a successful Snapshot Response to the request. Receive the disseminated series of Top of Book messages Receive the Snapshot Complete message
5.	Record the details of the Snapshot Request message sent in the Conformance Test Report	Sequence Number Segment Instrument ID
6.	Logout and Disconnect within 5 seconds of the transmission of the last application message	Logout message sent by the client and connection terminated. If this is not done within the specified time, the server will terminate the client connection.

4.2.5 I7 Market Data – Instrument Suspension

NOTE: This section must be repeated for Market Data Level 1 and/or Full Depth MITCH services.

Test Case ID:	Gateway Description	Mandatory	Self-Conformance / Supported Test
I7 - 001	Market Data - Instrument Suspension (All Markets)	Y	Supported Test

Description:

CTA to suspend an Instrument. Client confirms receipt of the suspension and confirms the instrument closing price.

Comment:

Client to bind and subscribe to multicast data channel.

Call Customer Support to book time for executing this test with a CTA.

Activity Steps

#	Test Step	Expected Result
1.	Request Customer Test Analyst (CTA) to suspend an Instrument	Instrument successfully suspended. Receive Instrument status change of the suspended instrument and the published instrument closing price.
2.	Record the details of the suspended instrument in the Conformance Test Report	Interface User ID (CompID) Instrument ID Instrument Closing Price

4.2.6   **I8 Market Data – Closing Price**

NOTE: This section must be repeated for Market Data Level 1 and/or Full Depth MITCH services.

Test Case ID:	Gateway Description	Mandatory	Self Conformance / Supported Test
I8 - 001	Market Data – Closing Price (All Markets)	Y	Supported Test

Description:

CTA to reissue the Closing Price of an Instrument. Client confirms receipt and value of the updated Closing Price.

Comment:

Client to bind and subscribe to multicast data channel.

Call Customer Support to book time for executing this test with a CTA.

Activity Steps

#	Test Step	Expected Result
1.	Request Customer Test Analyst (CTA) to reissue the Closing Price of an Instrument	Instrument Closing Price reissued Receive reissued Closing Price.
2.	Record the details of the reissued Closing Price of the instrument in the Conformance Test Report	Interface User ID (CompID) Instrument ID Instrument Closing Price

4.2.7 I9 – Market Data - Full Depth MITCH and/or Level 1 Replay Service - Extended Stats Message

Test Case ID:	Gateway Description	Mandatory	Self-Conformance / Supported Test
I09 - 001	Market Data - Full Depth MITCH and/or Level 1 Replay Service -Extended Stats Message (All Markets)	Y	Self-Conformance

Description:
Client requests a replay of a message 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)

Comment:
Client submits a replay request message where each of the above values have changed

Activity Steps		
#	Test Step	Expected Result
1.	Establish a connection and logon to the Replay service	Successful Logon
2.	Send a Replay message request	Receive a successful response to the request. Receive requested messages. In the extended stats message: High/low price updated for on/off book trade Volume updated Nr of Trades updated VWAP updated
3.	Record the details of the response sent in the Conformance Test Report	InstrumentID Sequence number Order Book
4.	Logout and Disconnect within 5 seconds of the transmission of the last application message	Logout message sent by the client and connection terminated. If this is not done within the specified time, the server will terminate the client connection.

4.2.8 I10 – Market Data - Full Depth MITCH and/or Level 1 Replay Service - Cross Order

Test Case ID:	Gateway Description	Mandatory	Self-Conformance / Supported Test
I10 - 001	Market Data - Full Depth MITCH and/or Level 1 Replay Service - Cross Order (Equity Market)	Y	Self-Conformance
Description			
Client requests a replay of a Trade Message resulting from a successful Cross order			
Activity Steps			

#	Test Step	Expected Result
1.	Establish a connection and logon to the Replay service	Successful Logon
2.	Send a Replay message request	Receive a successful response to the request. Receive requested message.
3.	Record the details of the response message sent in the Conformance Test Report	Sequence number
4.	Logout and Disconnect within 5 seconds of the transmission of the last application message	Logout message sent by the client and connection terminated. If this is not done within the specified time, the server will terminate the client connection.

4.2.9 I11 – Market Data - Full Depth MITCH and/or Level 1 Replay Service - Pegged Order

Test Case ID:	Gateway Description	Mandatory	Self-Conformance / Supported Test
I11 - 001	Market Data - Full Depth MITCH and/or Level 1 Replay Service - Pegged Order (Equity Market)	Y	Self-Conformance
Description			
Client requests a replay of a Trade Message resulting from a successful Pegged Order			
Activity Steps			

#	Test Step	Expected Result
1.	Establish a connection and logon to the Replay service	Successful Logon
2.	Send a Replay message request	Receive a successful response to the request. Receive requested message
3.	Record the details of the response message sent in the Conformance Test Report	Sequence number
4.	Logout and Disconnect within 5 seconds of the transmission of the last application message	Logout message sent by the client and connection terminated. If this is not done within the specified time, the server will terminate the client connection.

4.2.10   **I12– Market Data - Full Depth MITCH and/or Level 1 Replay Service - Volume Auction trade**

Test Case ID:	Gateway Description	Mandatory	Self-Conformance / Supported Test
I12 - 001	Market Data - Full Depth MITCH and/or Level 1 Replay Service - Volume auction	Y	Self-Conformance
Description:			
Client requests a replay of a Trade Message resulting from a successful Volume auction trade			

I122.	Send a Replay message request	Receive a successful response to the request. Receive requested message
3.	Record the details of the response message sent in the Conformance Test Report	Sequence number
4.	Logout and Disconnect within 5 seconds of the transmission of the last application message	Logout message sent by the client and connection terminated. If this is not done within the specified time, the server will terminate the client connection.

4.2.11   **I13– Market Data - Full Depth MITCH and/or Level 1 Replay Service – EOD Volume Auction call trade**

Test Case ID:	Gateway Description	Mandatory	Self-Conformance / Supported Test
I12I13 - 001	Market Data – Full Depth MITCH/Level 1 FIX/FAST Replay Service – EOD Volume Auction call (Equity Market)	Y	Self-Conformance
Description:			
Client requests a replay of a Trade Message resulting from a successful EOD Volume Auction call trade			
Activity Steps			

#	Test Step	Expected Result
1.	Establish a connection and logon to the Replay service	Successful Logon
2.	Send a Replay message request	Receive a successful response to the request. Receive requested message
3.	Record the details of the response message sent in the Conformance Test Report	Sequence number
4.	Logout and Disconnect within 5 seconds of the transmission of the last application message	Logout message sent by the client and connection terminated. If this is not done within the specified time, the server will terminate the client connection.

4.3   Trading Conformance

NOTE: This section must be repeated for Native Trading/Native Enhanced Trading and FIX Trading, interfaces where applicable.

4.3.1   **T1 Trading - Logon**

Test Case ID:	Trading Gateway	Mandatory	Self Conformance / Supported Test
T1-001	Trading Connect / Login (All Markets)	Y	Self Conformance
Description:			
Establish a connection, Logon and change your password.			
Comment:			
The Logon message must be sent within 15 seconds of the transmission of establishing the TCP/IP connection.			
Activity Steps			

#	Test Step	Expected Result
1.	Establish a connection and issue a Logon request message with new password to the Gateway	Successful Logon
2.	Successful login with new password accepted	Receive a successful Login Response
3.	Record the details of the Logon message sent in the Conformance Test Report	Interface User ID (CompID)

4.3.2   **T2 Trading – Auction Order Management**

NOTE: This section must be repeated for FIX Trading/Native Trading and Native Enhanced Trading interfaces where applicable.

Test Case ID:	Trading Gateway	Mandatory	Self Conformance / Supported Test
T2-001	Trading – Auction Market Orders (All Markets)	Y	Self Conformance

Description:

Validate Market Orders during an Auction period.

Comment:

Remain logged in from previous step. The test needs to be executed during the Opening/Closing auction session.

Activity Steps

#	Test Step	Expected Result
1.	Enter a Market Order. Assume there is a match for this order in the order book. If a matching order in the order book, please create one.	Receive an Execution Report. The order goes onto the order book and will be executed at the auction uncrossing.
2.	Order execution occurs at the auction uncrossing.	Receive an Execution Report.
3.	Record the details of the order message sent and the Execution Reports in the Conformance Test Report	Interface User ID (CompID) Order ID Client Order ID Execution ID

Test Case ID:	Trading Gateway	Mandatory	Self Conformance / Supported Test
T2-002	Trading – Auction Limit Orders (All Markets)	Y	Self Conformance

Description:

Validate Limit Orders during an Auction period.

Comment:

Remain logged in from previous step. The test needs to be executed during the Opening/Closing auction session.

Activity Steps

#	Test Step	Expected Result
1.	Enter a Limit Order. Assume there is a match for this order in the order book. If a matching order in the order book, please create one.	Receive an Execution Report. The order goes onto the order book and will be executed at the auction uncrossing.
2.	Order execution occurs at the auction uncrossing.	Receive an Execution Report.
3.	Record the details of the order message sent and the Execution Reports in the Conformance Test Report	Interface User ID (CompID) Order ID Client Order ID Execution IDs

4.3.3 **T3 Trading – Continuous Trading Order Management**

NOTE: This section must be repeated for FIX Trading/Native Trading and Native Enhanced Trading interfaces where applicable.

Test Case ID:	Trading Gateway	Mandatory	Self Conformance / Supported Test
T3-001	Trading – Continuous Trading Market Orders (All Markets)	Y	Self Conformance

Description:
Validate Aggressive Market Orders during the Continuous Trading period. This is an un-priced order

Comment:
Remain logged in from previous step. The test needs to be executed during the Continuous Trading session.

Activity Steps		
#	Test Step	Expected Result
1.	Enter an aggressive Market Order (IOC or FOK). Assume there is a match for this orders in the order book. If no matching orders exist in the order book, please create these.	The order executes immediately. Receive an Execution Report.
2.	Record the details of the order message sent and the Execution Report in the Conformance Test Report	Interface User ID (CompID) Order ID Client Order ID Execution ID

Test Case ID:	Trading Gateway	Mandatory	Self Conformance / Supported Test
T3-002	Trading – Continuous Trading Limit Orders (All Markets)	Y	Self Conformance

Description:
Validate Aggressive Limit Orders during the Continuous Trading period.

Comment:
Remain logged in from previous step. The test needs to be executed during the Continuous Trading session.

Activity Steps		
#	Test Step	Expected Result
1.	Enter an aggressive Limit Order (IOC or FOK). Assume there is a match for this order in the order book. If no matching orders exist in the order book, please create these.	The order executes immediately. Receive an Execution Report.
2.	Record the details of the order message sent and the Execution Report in the Conformance Test Report	Interface User ID (CompID) Order ID Client Order ID Execution IDs

Test Case ID:	Trading Gateway	Mandatory	Self Conformance / Supported Test
T3-003	Trading – Continuous Trading Limit Orders (All Markets)	Y	Self Conformance

Description:

Validate Passive Limit Orders during the Continuous Trading period.

Comment:

Remain logged in from previous step. The test needs to be executed during the Continuous Trading session.

Activity Steps

#	Test Step	Expected Result
1.	Enter a passive Limit Order.	The order goes onto the order book. Receive an Execution Report.
2.	Assume there is a match for this order in the order book. If no matching orders exist in the order book, please create one.	The order executes up to the limit price on the order. Receive an Execution Report.
3.	Record the details of the order message sent and the Execution Report in the Conformance Test Report	Interface User ID (CompID) Order ID Client Order ID Execution Ids

Test Case ID:	Trading Gateway	Mandatory	Self Conformance / Supported Test
T3-004	Trading – Continuous Trading Stop Orders (All Markets)	Y	Self Conformance

Description:

Validate Stop Orders during the Continuous Trading period.

Comment:

Remain logged in from previous step. The test needs to be executed during the Continuous Trading session.

Activity Steps

#	Test Step	Expected Result
1.	Enter a Stop Order.	The order gets a valid order status and will remain unelected. Receive an Execution Report.
2.	Assume there is a match for this order in the order book. If no matching orders exist in the order book, please create one.	The order is elected and executes until the stop price is reached. Receive an Execution Report.
3.	Record the details of the order message sent and the Execution Report in the Conformance Test Report	Interface User ID (CompID) Order ID Client Order ID Execution IDs

Test Case ID:	Trading Gateway	Mandatory	Self Conformance / Supported Test
T3-005	Trading – Continuous Trading Stop Limit Orders (All Markets)	Y	Self Conformance

Description:

Validate Stop Limit Orders during the Continuous Trading period.

Comment:

Remain logged in from previous step. The test needs to be executed during the Continuous Trading session.

Activity Steps

#	Test Step	Expected Result
1.	Enter a Stop Limit Order.	The order will remain unelected until the stop price is reached. Receive an Execution Report.
2.	Assume there is a match for this order in the order book. If no matching orders exist in the order book, please create one.	The order is elected and executes. Receive an Execution Report.
3.	Record the details of the order message sent and the Execution Report in the Conformance Test Report	Interface User ID (CompID) Order ID Client Order ID Execution IDs

Test Case ID:	Trading Gateway	Mandatory	Self Conformance / Supported Test
T3-006	Trading – Continuous Trading Amend Orders (All Markets)	Y	Self Conformance

Description:

Validate Order modification during the Continuous Trading period.

Comment:

Remain logged in from previous step. The test needs to be executed during the Continuous Trading session.

Activity Steps

#	Test Step	Expected Result
1.	Enter an Order. Assume there is no matching order for this order in the order book.	The order is successfully submitted and resides on the order book. Receive an Execution Report.
2.	Amend the Order.	The order is successfully amended. Receive an Execution Report.
3.	Record the details of the order messages sent and the Execution Report in the Conformance Test Report	Interface User ID (CompID) Order ID Client Order ID Execution IDs

Test Case ID:	Trading Gateway		Mandatory	Self-Conformance / Supported Test
T3-007	Trading – Continuous Trading Cancel Order (All Markets)		Y	Self-Conformance

Description:

Validate Order cancellation during the Continuous Trading period.

Comment:

Remain logged in from previous step. The test needs to be executed during the Continuous Trading session.

Activity Steps

#	Test Step	Expected Result
1.	Enter an Order. Assume there is no matching order for this order in the order book.	The order is successfully submitted and resides on the order book. Receive an Execution Report.
2.	Cancel the Order.	The order is successfully cancelled. Receive an Execution Report.
3.	Record the details of the order messages sent and the Execution Report in the Conformance Test Report	Interface User ID (CompID) Order ID Client Order ID Execution IDs

Test Case ID:	Trading Gateway	Mandatory	Self-Conformance / Supported Test
T3-008	Trading – Continuous Trading Order Mass Cancel (All Markets)	Y	Self-Conformance

Description:

Validate Order Mass Cancel during the Continuous Trading period.

Comment:

Remain logged in from previous step. The test needs to be executed during the Continuous Trading session.

Activity Steps

#	Test Step	Expected Result
1.	Enter 5 Order non-executable regular orders Ensure there are no matching orders for these orders in the order book.	The orders are successfully submitted and reside on the order book. Receive Execution Reports.
2.	Cancel all open orders.	The orders are successfully cancelled. Receive Execution Reports and Order Mass Cancel Report.
3.	Record the details of the order messages sent, Order Mass Cancel Report and the Execution Reports in the Conformance Test Report	Interface User ID (CompID) Order IDs Client Order IDs Execution IDs Sequence No (Order Mass Cancel Report)

Test Case ID:	Trading Gateway	Mandatory	Self-Conformance / Supported Test
T3-09	Trading – Continuous Trading Cancel on disconnect (All Markets)	Y	Self-Conformance

Description:

Validate Cancel on disconnect.

Comment:

Remain logged in from previous step. The test needs to be executed during the Continuous Trading session.

Activity Steps

#	Test Step	Expected Result
1.	Enter 5 Order non-executable regular orders Ensure there are no matching orders for these orders in the order book.	The orders are successfully submitted and reside on the order book. Receive Execution Reports.
2.	Terminate the session by generating a TCP disconnect for Cancel on disconnect.	Client session is terminated.
3.	Establish a connection and Logon	Successful Logon.
4.	Verify the status of orders entered in step 1 above.	All orders are cancelled. Receive Execution Reports for cancelled orders. NOTE: For Native Trading, recover missed messages via the recovery channel)
3.	Record the details of the order messages sent and the Execution Reports in the Conformance Test Report	Interface User ID (CompID) Order IDs Client Order IDs Execution IDs

Test Case ID:	~~Trading Gateway~~	~~Mandatory~~	~~Self-Conformance / Supported Test~~
~~**T3-010**~~	~~Trading – Continuous Trading Exclude Hidden Limit Orders~~ (Equity Market)	~~Y~~	~~Self-Conformance~~

~~**Description:**~~

~~Validate Exclude Hidden Limit Orders during Continuous Trading period.~~

~~**Comment:**~~

~~Remain logged in from previous step. The test needs to be executed during the Continuous Trading session.~~

~~**Activity Steps**~~

~~#~~	~~Test Step~~	~~Expected Result~~
~~1.~~	~~Enter Exclude Hidden Limit Order~~	~~The order is successfully submitted and resides on the order book.~~ ~~Receive~~ Execution Report.
~~2.~~	~~Record the details of the order messages sent and the Execution Reports in the Conformance Test Report~~	~~Interface User ID (CompID)~~ ~~Order ID~~ ~~Client Order ID~~ ~~Execution ID~~

Test Case ID:	Native Enhanced Trading Gateway	Mandatory	Self-Conformance / Supported Test
T3-011	Trading – Continuous Trading Market to Limit Orders (Derivative)	Y	Self-Conformance

Description:

Validate Market to Limit Order during the Continuous Trading period.

Comment:

Remain logged in from previous step. The test needs to be executed during the Continuous Trading session.

Activity Steps

#	Test Step	Expected Result
1.	Enter a Market to Limit Order.	Receive an Execution Report.
2.	Assume there is a partial match for this order in the order book. If no matching orders exist in the order book, please create one.	The order is partially matched and executes. Receive an Execution Report.
3.	Record the details of the order message sent and the Execution Report in the Conformance Test Report	Interface User ID (CompID) Order ID Client Order ID Execution IDs

Test Case ID:	Native Enhanced Trading Gateway	Mandatory	Self-Conformance / Supported Test
T3-012	Trading – Continuous Trading Market if touched Orders (Derivative)	Y	Self-Conformance

Description:

Validate Market if Touched Order during the Continuous Trading period.

Comment:

Remain logged in from previous step. The test needs to be executed during the Continuous Trading session.

Activity Steps

#	Test Step	Expected Result
1.	Enter a Market if Touched Order.	The order will remain unelected until the trigger price is reached. Receive an Execution Report.
2.	Assume there is a match for this order in the order book. If no matching orders exist in the order book, please create one.	The order is elected and executes. Receive an Execution Report.
3.	Record the details of the order message sent and the Execution Report in the Conformance Test Report	Interface User ID (CompID) Order ID Client Order ID Execution IDs

4.3.4 **T4 Trading – Native Trading Recovery**

NOTE: This section must be repeated for FIX Trading/Native Trading and Native Enhanced Trading interfaces where applicable.

Test Case ID:	Trading Gateway	Mandatory	Self-Conformance / Supported Test
T4-001	Trading – Recovering Missed Messages (All Markets)	Y	Self-Conformance

Description:
Prove Native Trading recovery of missed messages

Comment:
Remain logged in from previous step. The test needs to be executed during the Continuous Trading session. The same CompID must be used for both the Native Trading and Native Recovery service

Activity Steps

#	Test Step	Expected Result
1.	Enter 5 Orders and disconnect.	Receive Execution Reports for orders. Successful logoff.
2.	Wait for a period of time to ensure your order has executed or expired. Connect and Logon to the real time recovery services with the same CompID. Request missed messages.	Successful Logon to real time and recovery services. Request missed messages. Receive missed messages and Missed Message Report.
3.	Logout from the Native Recovery service within 3 heartbeat intervals. The recovery service will disconnect a client's connection if there is no activity for 3 heartbeats.	Logout successfully and recovery session terminated.
4.	Record the details of the order messages sent and the missed message request in the Conformance Test Report	Interface User ID (CompID) Order IDs Client Order IDs CompID

4.4 Post Trade Gateway Conformance

4.4.1 T5 Post Trade Gateway – Single Sided Trade Reporting

Test Case ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
T5-001	Post Trade Connect / Login (All Markets)	Y	Self-Conformance

Description:			
Establish a connection, Logon and change your password.			

Comment:			
If already connected from Trading test sessions above, please remain logged in.			

Activity Steps			

#	Test Step	Expected Result
1.	Establish a connection and issue a Logon request message with new password to the Gateway	Successful Logon
2.	Successful login with new password accepted	Receive a successful Login Response
3.	Record the details of the Logon message sent in the Conformance Test Report	Interface User ID (CompID)

Test Case ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
T5-002	Post Trade – Single Sided Trade Reporting (All Markets)	Y	Self-Conformance

Description:

Submit a single sided Trade Report

Comment:

You will already be connected from the previous test step. Submit a single sided trade report

Activity Steps

#	Test Step	Expected Result
1.	Submit an Off Book single sided Trade Report	Trade Report successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the Trade Report in the Conformance Test Report	Interface User ID (CompID) Trade Report ID Trade ID

Test Case ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
T5-003	Post Trade – Single Sided Trade Reporting (All Markets)	Y	Self-Conformance

Description:

Same day cancel of a single sided Off Book Trade Report

Comment:

You will already be connected from the previous test step. Cancel a single sided trade report captured on the same day.

Activity Steps

#	Test Step	Expected Result
1.	Submit an Off Book single sided Trade Report cancellation.	Trade Report cancellation successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the cancelled Trade Report in the Conformance Test Report.	Interface User ID (CompID) Trade ID Trade Report ID

Test Case ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
T5-004	Post Trade – Single Sided Trade Reporting (Equity Market)	Y	Self-Conformance

Description:

Next day cancel of a single sided published Off Book Trade Report. (LC)

Comment:

You will already be connected from the previous test step. Cancel a published single sided trade report captured on the previous day.

Activity Steps

#	Test Step	Expected Result
1.	Submit a next day Off Book single sided Trade Report cancellation of a published reported trade.	Trade Report cancellation successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the cancelled Trade Report in the Conformance Test Report.	Interface User ID (CompID) Trade ID Trade Report ID

Test Case ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
T5-005	Post Trade – Single Sided Trade Reporting (Equity Market)	Y	Self-Conformance

Description:

Next day cancel of a single sided non-published Off Book Trade Report. (NC)

Comment:

You will already be connected from the previous test step. Cancel a non-published single sided trade report captured on the previous day.

Activity Steps

#	Test Step	Expected Result
1.	Submit a next day Off Book single sided Trade Report cancellation of a non-published reported trade.	Trade Report cancellation successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the cancelled Trade Report in the Conformance Test Report.	Interface User ID (CompID) Trade ID Trade Report ID

4.4.2 T6 Post Trade Gateway - Dual Sided Trade Reporting

Test Case ID:	Post Trade Gateway		Mandatory	Self-Conformance / Supported Test
T6-001	Post Trade – Dual Sided Trade Reporting (All Markets)		Y	Self-Conformance

Description:

Submit a dual sided Trade Report.

Comment:

You will already be connected from the previous test step. Submit a dual sided trade report.

Activity Steps

#	Test Step	Expected Result
1.	Submit an Off Book dual sided Trade Report. Assuming all clients developing trading interfaces will have 2 different FirmIDs i.e. counterparties to test with. Clients must be able to accept/reject the trade as the counterparty to ensure a confirmed Trade Report is generated.	Trade Report successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the Trade Report in the Conformance Test Report	Interface User ID (CompID) Trade Report ID Trade ID

Test Case ID:	Post Trade Gateway		Mandatory	Self-Conformance / Supported Test
T6-002	Post Trade – Dual Sided Trade Reporting (All Markets)		Y	Self-Conformance

Description:

Same day cancel of a dual sided Off Book Trade Report

Comment:

You will already be connected from the previous test step. Cancel a dual sided trade report captured on the same day.

Activity Steps

#	Test Step	Expected Result
1.	Submit an Off Book dual sided Trade Report cancellation of a confirmed Trade. Assuming all clients developing trading interfaces will have 2 different FirmIDs i.e. counterparties to test with. Clients must be able to accept/reject the trade as the counterparty to ensure a confirmed Trade Report is cancelled.	Trade Report cancellation successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the cancelled Trade Report in the Conformance Test Report.	Interface User ID (CompID) Trade ID Trade Report ID

Test Case ID:	Post Trade Gateway		Mandatory	Self-Conformance / Supported Test
T6-003	Post Trade – Dual Sided Trade Reporting (Equity Market)		Y	Self-Conformance

Description:

Next day cancel of a dual sided published Off Book Trade Report. (LC)

Comment:

You will already be connected from the previous test step. Cancel a published dual sided trade report captured on the previous day.

Activity Steps

#	Test Step	Expected Result
1.	Submit a next day Off Book dual sided Trade Report cancellation of a published reported trade.	Trade Report cancellation successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the cancelled Trade Report in the Conformance Test Report.	Interface User ID (CompID) Trade ID Trade Report ID

Test Case ID:	Post Trade Gateway		Mandatory	Self-Conformance / Supported Test
T6-004	Post Trade – Dual Sided Trade Reporting (Equity Market)		Y	Self-Conformance

Description:

Next day cancel of a dual sided non-published Off Book Trade Report. (NC)

Comment:

You will already be connected from the previous test step. Cancel a non-published dual sided trade report captured on the previous day.

Activity Steps

#	Test Step	Expected Result
1.	Submit a next day Off Book dual sided Trade Report cancellation of a non-published reported trade.	Trade Report cancellation successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the cancelled Trade Report in the Conformance Test Report.	Interface User ID (CompID) Trade ID Trade Report ID

Test Case ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
T6-003	Post Trade – Dual Sided Trade Reporting (Equity Market)	Y	Self-Conformance

Description:

Next day cancel of a dual sided published Off Book Trade Report. (LC)

Comment:

You will already be connected from the previous test step. Cancel a dual sided trade report captured on the previous day.

Activity Steps

#	Test Step	Expected Result
1.	Submit a next day Off Book dual sided Trade Report cancellation of a published reported trade.	Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the cancelled Trade Report in the Conformance Test Report.	Interface User ID (CompID) Trade ID Trade Report ID

Test Case ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
T6-004	Post Trade – Dual Sided Trade Reporting (Equity Market)	Y	Self-Conformance

Description:

Next day cancel of a dual sided non-published Off Book Trade Report. (NC)

Comment:

You will already be connected from the previous test step. Cancel a non-published dual sided trade report captured on the previous day.

Activity Steps

#	Test Step	Expected Result
1.	Submit a next day Off Book dual sided Trade Report cancellation of a non-published reported trade.	Trade Report cancellation successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the cancelled Trade Report in the Conformance Test Report.	Interface User ID (CompID) Trade ID Trade Report ID

4.4.3 **T7 Post Trade Gateway – Post Contra Trade (PC)**

Test Case ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
T7-001	Post Trade – Trade Reporting (Equity Market)	Y	Self-Conformance

Description:

Correction of a previous day On Book Trade. (PC)

Comment:

You will already be connected from the previous test step. **Cancel an On Book trade** executed on the previous day.

Activity Steps

#	Test Step	Expected Result
1.	Submit a Post Contra Trade Report.	Trade Report cancellation successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the Post Contra Trade Report in the Conformance Test Report.	Interface User ID (CompID) Trade ID Trade Report ID OrigTradeID OrigTradeDate

Test Case ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
T7-002	Post Trade – Trade Cancellation (All Markets)	Y	Self-Conformance

Description:

Cancellation of a same day On Book Trade.

Comment:

You will already be connected from the previous test step. **Cancel an On Book trade** executed on the same day.

Activity Steps

#	Test Step	Expected Result
1.	Submit a Trade Capture Report to cancel a same day On Book trade.	Trade Report cancellation successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the same day On Book cancellation Trade Capture Report in the Conformance Test Report.	Interface User ID (CompID) Trade ID Trade Report ID OrigTradeID OrigTradeDate

4.4.4   **T8 Post Trade - Own Trades Book Download (OTBD)**

Test Case ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
T8-001	Post Trade – OTBD (All Markets)	Y	Self-Conformance

Description:
Submit Own Trades Book Download Request.

Comment:
You will already be connected from the previous test step.

Activity Steps		
#	Test Step	Expected Result
1.	Submit a Trade Capture Report Request.	Receive a Trade Capture Report Request Ack. Receive a Trade Capture Report(s) (TCRs) as requested.
2.	Record the details of the Trade Capture Report Request in the Conformance Test Report.	Interface User ID (CompID) Trade ID Trade Request ID

4.5   **T9 Drop Copy Gateway**

Test Case ID:	Drop Copy Gateway	Mandatory	Self-Conformance / Supported Test
T9-001	Drop Copy Connect / Login (All Markets)	Y	Self-Conformance

Description:
Establish a connection, Logon and change your password.

Comment:
If already connected from Trading test sessions above, please remain logged in.

Activity Steps		
#	Test Step	Expected Result
1.	Establish a connection and issue a Logon request message with new password to the Gateway	Successful Logon
2.	Successful login with new password accepted	Receive a successful Login Response
3.	Record the details of the Logon message sent in the Conformance Test Report	Interface User ID (CompID)

Test Case ID:	Drop Copy Gateway	Mandatory	Self Conformance / Supported Test
T9-002	Drop Copy – OOBD (All Markets)	Y	Self Conformance

Description:

Submit Own Order Book Download (OOBD) Request.

Comment:

You will already be connected from the previous test step.

Activity Steps

#	Test Step	Expected Result
1.	Submit a Mass Order Status Request.	Receive an Execution Report for each active order for the specified Trader Group/Trader as requested.
2.	Record the details of the Mass Order Status Request in the Conformance Test Report.	Interface User ID (CompID) Mass Status Req ID Trader Group Trader ID

4.6   T10 On Behalf of Actions (Native/Native Enhanced and FIX Trading)

NOTE: This section must be repeated for both Native/Native Enhanced Trading and FIX Trading interfaces.

Test Case ID:	Trading Gateways	Mandatory	Self-Conformance / Supported Test
T10 -001	Trading On Behalf Of (OBO) Actions (All Markets)	Y	Supported Test

Description:

Establish a connection and Logon. CTA to action OBO Order Cancel activity. Client confirms receipt of unsolicited messages.

Comment:

If already connected from Trading test sessions above, please remain logged in.

Call Customer Support to book time for executing this test with a CTA.

Activity Steps

#	Test Step	Expected Result
1.	If required, establish a connection and issue a Logon request message.	Successful Logon
2.	Client to submit an Order. Assuming there is no match for the order in the order book.	Order successfully submitted and remains on the order book. Receive Execution Report. Provide the Order ID and Client Order ID to CTA
3.	Request Customer Test Analyst (CTA) to cancel the order.	Order is successfully cancelled. Receive Execution Report with Execution Type (4)
4.	Record the details of the order message sent in the Conformance Test Report	Interface User ID (CompID) Order ID Client Order ID

Test Case ID:	Trading Gateways	Mandatory	Self-Conformance / Supported Test
T10 -002	Trading On Behalf Of (OBO) Actions (All Markets)	Y	Supported Test

Description:

CTA to action OBO Trade Cancel activity. Client confirms receipt of unsolicited messages.

Comment:

Client already connected from Trading test sessions above, please remain logged in.

Call Customer Support to book time for executing this test with a CTA.

Activity Steps

#	Test Step	Expected Result
1.	Client to generate an On Book Trade. Assuming there is a match for the order submitted, otherwise please generate one.	Order successfully submitted and executes. Receive Execution Reports. Provide the Trade ID, Order ID and Client Order ID to the CTA
2.	Request Customer Test Analyst (CTA) to cancel the On Book Trade.	Trade is successfully cancelled. Receive Execution Reports to cancel the Trade and reinstate the order
3.	Record the details of the trade/order message sent in the Conformance Test Report	Interface User ID (CompID) Execution ID of Trade Cancel and Order reinstatement Trade ID Order ID Client Order ID

Test Case ID:	Post Trade Gateways		Mandatory	Self-Conformance / Supported Test
T10 -003	Trading On Behalf Of (OBO) Actions (All Markets)		Y	Supported Test

Description:

CTA to action OBO single sided Trade activity. Client confirms receipt of unsolicited messages.

Comment:

Client already connected from Trading test sessions above, please remain logged in.

Call Customer Support to book time for executing this test with a CTA.

Activity Steps

#	Test Step	Expected Result
1.	Request Customer Test Analyst (CTA) to submit an Off Book trade report On Behalf Of the client.	Trade is successfully captured. Receive TCRs of the captured Trade Report.
2.	Record the details of the trade sent in the Conformance Test Report	Interface User ID (CompID) Trade ID Client Order ID

Test Case ID:	Trading Gateways		Mandatory	Self-Conformance / Supported Test
T10 -004	News message published by the Exchange (All Markets)		Y	Supported Test

Description:

CTA to publish a unique News message. Client confirms receipt of unsolicited messages.

Comment:

Client already connected from Trading test sessions above, please remain logged in.

Call Customer Support to book time for executing this test with a CTA.

Activity Steps

#	Test Step	Expected Result
1.	CTA publishes a unique message to the client. No actions required by the client	News message successfully submitted. Receive News message. Provide the Trade ID, Order ID and Client Order ID to the CTA
2.	Record the details of the News message sent in the Conformance Test Report	Interface User ID (CompID) Unique text message received Instrument ID

4.7   T11 Trading – Cross Order (FIX or Native, FIX Drop Copy and FIX, Post Trade)

Test Case ID:	Trading – Cross Order (FIX or Native, FIX Drop Copy, Post Trade)	Mandatory	Self-Conformance / Supported Test
T11-001	FIX or Native Gateway (Equity Market)	Y	Self-Conformance

Description:

Successfully submit a Cross Order on the FIX or Native or FIX Trading GatewaysGateway

Comment:

In order for the Cross Order to be successfully submitted, TIF must be DAY

Activity Steps

#	Test Step	Expected Result
1.	Enter a Cross Order during continuous trading	The order executes immediately. Receive an Execution Report.
2.	Record the details of the order message sent and the Execution Report in the Conformance Test Report	Interface User ID (CompID) Security ID Trader mnemonic ExecutionID

Test Case ID:	Trading – Cross Orders (Drop Copy)	Mandatory	Self-Conformance / Supported Test
T11-002	Drop Copy Gateway (Equity Market)	Y	Self-Conformance

Description:

Ensure the Cross Orders were the only orders submitted for this instrument. Log onto the Drop Copy Gateway and confirm there are no open orders for the instrument.

Activity Steps

#	Test Step	Expected Result
1.	Log onto Drop Copy gateway Request to view all open orders	Receive an Execution Report.report received
2.	Record the details of the execution report indicating no open orders	No open orders for specified instrument Interface User ID (CompID)

Test Case ID:	Trading – Cross Orders	Mandatory	Self-Conformance / Supported Test
T11-003	Post Trade Gateway (Equity Market)	Y	Self-Conformance

Description:

From the previous test case of successfully submitting a Cross Order, confirm the order is successful on the Post Trade Gateway

Activity Steps

#	Test Step	Expected Result
1.	Record the details of the Trade Capture Report of the successful Cross Order	Interface User ID (CompID) SecurityID Trade ID

4.8   T12 Trading – Pegged Order (FIX or Native, FIX Drop Copy and FIX, Post Trade)

Test Case ID:	Trading – Pegged Orders	Mandatory	Self-Conformance / Supported Test
T12-001	FIX or Native Gateway Gateways (Equity Market)	Y	Self-Conformance

Description:

Successfully submit a Pegged Order on the FIX or Native or FIX Trading Gateways

Comment:

In order for the Pegged Order to be successfully submitted, MES is mandatory.

Activity Steps

#	Test Step	Expected Result
1.	Enter a Pegged Order during any of the below trading sessions: • continuous trading • opening auction • volatility action call • intra-day auction call • FCO	The order is successfully submitted Receive an Execution Report.
2.	Record the details of the order message sent and the Execution Report in the Conformance Test Report	Interface User ID (CompID) Trader mnemonic Order ID ClientOrderID Instrument ID

Test Case ID:	Trading – Pegged Orders	Mandatory	Self-Conformance / Supported Test
T12-002	Drop Copy Gateway (Equity Market)	Y	Self-Conformance

Description:

From the previous test case, log onto the Drop Copy Gateway and confirm open orders exist specific to the Pegged Order submitted

Comment:

Logon to the Drop Copy Gateway and request to view all open orders

Activity Steps

#	Test Step	Expected Result
1.	Log onto Drop Copy Gateway Request to view all open orders for the relevant instrument	Logon successful Receive an Execution Report with open orders for relevant instrument.
2.	Record the details of the Execution Report in the Conformance Test Report	InstrumentID SecurityID ClientOrderID

Test Case ID:	Trading – Pegged Orders	Mandatory	Self-Conformance / Supported Test
T12-003	Post Trade Gateway (Equity Market)	Y	Self-Conformance

Description:

Submit an order that successfully executes against the Pegged Order submitted in the previous steps and confirm the trade is successful on the Post Trade Gateway

Activity Steps

#	Test Step	Expected Result
1.	Submit an order that executes against the Pegged Order	Order successfully execute
2.	Record details of Trade Capture Report	Interface User ID (CompID) SecurityID ClientOrderID TradeID

4.9 T13 Trading – Pegged Limit Order (FIX or Native, FIX Drop Copy and FIX, Post Trade)

Test Case ID:	Trading – Pegged Limit Order (FIX or Native, Drop Copy, Post Trade)	Mandatory	Self-Conformance / Supported Test
T13-001	FIX or Native Gateway (Equity Market)	Y	Self-Conformance

Description:

Successfully submit a Pegged Limit Order on the FIX or Native & FIX Trading Gateways

Comment:

In order for the Pegged limit order to be successfully submitted, MES is mandatory.

Activity Steps

#	Test Step	Expected Result
1.	Enter a Pegged limit order during any of the below trading sessions: • continuous trading • opening auction • volatility action call • intra-day auction call • FCO	The order is successfully submitted Receive an Execution Report.
2.	Record the details of the order message sent and the Execution Report in the Conformance Test Report	Interface User ID (CompID) SecurityID OrderID ClientOrderID

Test Case ID:	Trading – Pegged Limit Orders	Mandatory	Self-Conformance / Supported Test
T13-002	Drop Copy gateway (Equity Market)	Y	Self-Conformance

Description:

From the previous test case, log onto the Drop Copy gateway and confirm open orders exist specific to the Pegged Limit Order submitted

Activity Steps

#	Test Step	Expected Result
1.	Log onto Drop Copy gateway Request to view all open orders	The order executes immediately. Receive an Execution Report with no Open orders for instrument.
2.	Record the details of the order message sent and the Execution Report in the Conformance Test Report	Interface User ID (CompID) InstrumentID SecurityID

Test Case ID:	Trading – Pegged Limit Orders		Mandatory	Self-Conformance / Supported Test
T13-003	Post Trade Gateway (Equity Market)		Y	Self-Conformance

Description:

Submit an order that successfully executes against the Pegged Limit Order submitted in the previous steps and confirm the trade is successful on the Post Trade Gateway

Activity Steps

#	Test Step	Expected Result
1.	Find successfully executed Pegged limit order matching with:	Receive an Execution report
2.	Record the details of the order message sent and the Trade Capture Report in the Conformance Test Report	Interface User ID (CompID) ClientOrderID SecurityID

4.10 T14 Trading – EOD Volume Auction Uncross (FIX or Native, FIX Drop Copy and FIX, Post Trade)

Test Case ID:	Trading – EOD Volume Auction Uncross (FIX or Native, Drop Copy, Post Trade)	Mandatory	Self-Conformance / Supported Test
T14-001	FIX or Native Gateways (Equity Market)	Y	Self-Conformance

Description:

Successfully submit a Good for EOD Volume Auction Uncross (GDX) order onto the Native & FIX Trading Gateways

Comment:

Remain logged onto the FIX or Native Trading Gateways

Activity Steps

#	Test Step	Expected Result
1.	Enter a Good for Volume Auction uncross (GDX) TIF order during any of the below trading sessions: • Continuous Trading • Opening Auction • Closing Auction • Re-opening Auction / Volatility Auction Call / Intra-day Auction Call / FCO auction call/EOD Volume Auction Call • Closing Price Publication • CPX session	The order is successfully submitted Receive an Execution Report.
2.	Record the details of the Execution Report in the Conformance Test Report	Interface User ID (CompID) ClientOrderID Instrument ID ExecutionID

Test Case ID:	Trading – EOD Volume Auction Uncross	Mandatory	Self-Conformance / Supported Test
T14-002	Drop Copy Gateway (Equity Market)	Y	Self-Conformance

Description:

From the previous test case, log onto the Drop Copy Gateway and confirm open orders exist specific to the EOD Volume Auction call order submitted

Comment:

Logon to recovery mode and request to view all open orders

Activity Steps

#	Test Step	Expected Result
1.	In recovery mode on Drop Copy gateway Request to view all open orders	The order is successfully executed Receive an Execution Report with Open orders for instrument
2.	Record the details of the order message sent and the Execution Report in the Conformance Test Report	Interface User ID (CompID) ClientOrderID InstrumentID ExecutionID

Test Case ID:	Trading – EOD Volume Auction Uncross Order	Mandatory	Self-Conformance / Supported Test
T14-003	Post Trade Gateway (Equity Market)	Y	Self-Conformance

Description:

Confirm that the successfully executed EOD Volume Auction uncross order submitted in the previous step is successful on the Post Trade Gateway

Activity Steps

#	Test Step	Expected Result
1.	Record the details of the order message sent and the Execution Report in the Conformance Test Report	Receive an Execution Report Match on: Interface User ID (CompID) ClientOrderID Instrument ID ExecutionID

4.11   T15 Trading – Quotes

Test Case ID:	Trading – Quotes	Mandatory	Self-Conformance / Supported Test
T15-001	Native Enhanced Gateway (Derivatives Markets)	Y	Self-Conformance

Description:
Successfully submit a dual-sided quote

Comment:
Logon to Native Enhanced Gateway and submit a dual-sided quote

Activity Steps		
#	Test Step	Expected Result
1.	Submit a dual-sided quote	Receive an Execution Report for each side
2.	Record the details of the quote message sent and the Execution Report in the Conformance Test Report	Receive an Execution Reports Match on: Interface User ID (CompID) ClientOrderID Instrument ID ExecutionID

4.12   T16 Trading – User Created Instruments

Test Case ID:	Trading – User Created Instrument - Future	Mandatory	Self-Conformance / Supported Test
T16-001	Native Enhanced Gateway (Derivatives Markets)	Y	Self-Conformance

Description:
Client submits a request to create an instrument under the "Any day futures" strategy type.

Comment:
Submit a request to create an Anyday Future instrument through the Native Enhanced Gateway.

Activity Steps		
#	Test Step	Expected Result
1.	Submit a request a Security Definition Request message	Receive a Security Definition message back
2.	Record the details of the Security Definition Request message sent and the Security Definition message in the Conformance Test Report	Interface User ID (CompID) Security Request ID Security Type Security ID

Test Case ID:	Trading – User Created Instrument – Call Option	Mandatory	Self-Conformance / Supported Test
T16-002	Native Enhanced Gateway (Derivatives Markets)	Y	Self-Conformance

Description:

Client submits a request to create an instrument under the "Call Option" strategy type.

Comment:

Submit a request to create a Call Option through the Native Enhanced Gateway.

Activity Steps

#	Test Step	Expected Result
1.	Submit a request a Security Definition Request message	Receive a Security Definition message back
2.	Record the details of the Security Definition Request message sent and the Security Definition message in the Conformance Test Report	Interface User ID (CompID) Security Request ID Security Type Security ID

Test Case ID:	Trading – User Created Instrument – Put Option	Mandatory	Self-Conformance / Supported Test
T16-003	Native Enhanced Gateway (Derivatives Markets)	Y	Self-Conformance

Description:

Client submits a request to create an instrument under the "Put Option" strategy type.

Comment:

Submit a request to create a Put Option through the Native Enhanced Gateway.

Activity Steps

#	Test Step	Expected Result
1.	Submit a request a Security Definition Request message	Receive a Security Definition message back
2.	Record the details of the Security Definition Request message sent and the Security Definition message in the Conformance Test Report	Interface User ID (CompID) Security Request ID Security Type Security ID

Test Case ID:	Trading – User Created Instrument – Forward Forwards	Mandatory	Self-Conformance / Supported Test
T16-004	Native Enhanced Gateway (Derivatives Markets)	Y	Self-Conformance

Description:

Client submits a request to create an instrument under the "Fwd Fwd" strategy type.

Comment:

Submit a request to create a Fwd Fwd through the Native Enhanced Gateway.

Activity Steps

#	Test Step	Expected Result
1.	Submit a request a Security Definition Request message	Receive a Security Definition message back
2.	Record the details of the Security Definition Request message sent and the Security Definition message in the Conformance Test Report	Interface User ID (CompID) Security Request ID Security Type Security ID

Test Case ID:	Trading – User Created Instrument – Naked Options	Mandatory	Self-Conformance / Supported Test
T16-005	Native Enhanced Gateway (Derivatives Markets)	Y	Self-Conformance

Description:

Client submits a request to create an instrument under the "Naked Options" strategy type.

Comment:

Submit a request to create a Naked Option through the Native Enhanced Gateway.

Activity Steps

#	Test Step	Expected Result
1.	Submit a request a Security Definition Request message	Receive a Security Definition message back
2.	Record the details of the Security Definition Request message sent and the Security Definition message in the Conformance Test Report	Interface User ID (CompID) Security Request ID Security Type Security ID

4.13　T17 Trading – On-Book Strategies

Test Case ID:	Trading – On-Book Strategies – Trade on User Created Instrument - "Any day"	Mandatory	Self-Conformance / Supported Test
T17-001	Native Enhanced Gateway (Derivatives Markets)	Y	Self-Conformance

Description:

Client executes an on-book trade against their "User Created Instrument" under the "Any day futures" strategy type

Comment:

Remain logged in from previous step. The test needs to be executed during the Continuous Trading session.

Activity Steps

#	Test Step	Expected Result
1.	Enter an Order for the "User Created Instrument" created in Test Case T16 001	The order is successfully submitted and resides on the order book. Receive an Execution Report
2.	Record the details of the Order sent and Execution Report message in the Conformance Test Report	Interface User ID (CompID) Client Order ID Security ID Security Type Execution ID

Test Case ID:	Trading – On-Book Strategies – Trade on "User Created Instrument" - "Call Delta Options"	Mandatory	Self-Conformance / Supported Test
T17-002	Native Enhanced Gateway (Derivatives Markets)	Y	Self-Conformance

Description:

Client executes an on-book trade against their "User Created Instrument" under the "Call Delta Options" strategy type

Comment:

Remain logged in from previous step. The test needs to be executed during the Continuous Trading session.

Activity Steps

#	Test Step	Expected Result
1.	Enter an Order for the "User Created Instrument" created in Test Case T16 002	The order is successfully submitted and resides on the order book. Receive an Execution Report
2.	Record the details of the Order sent and Execution Report message in the Conformance Test Report	Interface User ID (CompID) Client Order ID Security ID Security Type Execution ID

Test Case ID:	Trading – On-Book Strategies – Trade on "User Created Instrument" - "Put Delta Options"	Mandatory	Self-Conformance / Supported Test
T17-003	Native Enhanced Gateway (Derivatives Markets)	Y	Self-Conformance

Description:

Client executes an on-book trade against their "User Created Instrument" under the "Put Delta Options" strategy type

Comment:

Remain logged in from previous step. The test needs to be executed during the Continuous Trading session.

Activity Steps

#	Test Step	Expected Result
1.	Enter an Order for the "User Created Instrument" created in Test Case T16 003	The order is successfully submitted and resides on the order book. Receive an Execution Report
2.	Record the details of the Order sent and Execution Report message in the Conformance Test Report	Interface User ID (CompID) Client Order ID Security ID Security Type Execution ID

Test Case ID:	Trading – On-Book Strategies – Trade on "User Created Instrument" - "Naked Options"	Mandatory	Self-Conformance / Supported Test
T17-004	Native Enhanced Gateway (Derivatives Markets)	Y	Self-Conformance

Description:

Client executes an on-book trade against their "User Created Instrument" under the "Naked Options" strategy type

Comment:

Remain logged in from previous step. The test needs to be executed during the Continuous Trading session.

Activity Steps

#	Test Step	Expected Result
1.	Enter an Order for the "User Created Instrument" created in Test Case T16 005	The order is successfully submitted and resides on the order book. Receive an Execution Report
2.	Record the details of the Order sent and Execution Report message in the Conformance Test Report	Interface User ID (CompID) Client Order ID Security ID Security Type Execution ID

4.14   T18 Trading – Off-Book Strategies

Test Case ID:	Trading – Off-Book Strategies – Single/Dual sided trade - "Delta Option"	Mandatory	Self-Conformance / Supported Test
T18-001	FIX Post Trade Gateways (Derivatives Markets)	Y	Self-Conformance

Description:

Client performs a single/dual sided OFF BOOK trade under the Delta Option strategy type

Comment:

You will already be connected from the previous test step. Submit a single/dual sided trade report. Use your "User Created" instrument created in Test Case T16 002/003.

Activity Steps

#	Test Step	Expected Result
1.	Submit an Off Book single/dual sided Trade Report	The Report successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the Trade Report in the Conformance Test Report	Interface User ID (CompID) Trade Report ID Trade ID

Test Case ID:	Trading – Off-Book Strategies – Single/Dual sided trade - "Inverse Calendar Spread"	Mandatory	Self-Conformance / Supported Test
T18-002	FIX Post Trade Gateways (Derivatives Markets)	Y	Self-Conformance

Description:

Client performs a single/dual sided OFF BOOK trade under the Inverse Calendar Spread strategy type

Comment:

You will already be connected from the previous test step. Submit a single/dual sided trade report. Use your "User Created" instrument created in scenario Test Case T16 005.

Activity Steps

#	Test Step	Expected Result
1.	Submit an Off Book single/dual sided Trade Report	The Report successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the Trade Report in the Conformance Test Report	Interface User ID (CompID) Trade Report ID Trade ID

Test Case ID:	Trading – Off-Book Strategies – Single sided strategy type trade	Mandatory	Self-Conformance / Supported Test
T18-003	FIX Post Trade Gateways (Derivatives Markets)	Y	Self-Conformance

Description:

Perform a single sided Off Book strategy trade type

Comment:

Stay connected from the previous test step. Submit a single sided strategy type trade report.

Activity Steps

#	Test Step	Expected Result
1.	Submit an Off Book single sided strategy Trade Report	The Report successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the Trade Report in the Conformance Test Report	Interface User ID (CompID) Trade Report ID Trade ID

Test Case ID:	Trading – Off-Book Strategies – Single/Dual sided trade - "FwdFwd"	Mandatory	Self-Conformance / Supported Test
T18-004	FIX Post Trade Gateways (Derivatives Markets)	Y	Self-Conformance

Description:

Client performs a single/dual sided Off Book trade against their "User Created Instrument", created under the FwdFwd strategy type

Comment:

Stay connected from the previous test step. Submit a single sided strategy type trade report. Use your "User Created" instrument created in Test Case T16 004.

Activity Steps

#	Test Step	Expected Result
1.	Submit an Off Book single sided strategy Trade Report	The Report successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the Trade Report in the Conformance Test Report	Interface User ID (CompID) Trade Report ID Trade ID

Test Case ID:	Trading – Off-Book Strategies – Roll Trade	Mandatory	Self-Conformance / Supported Test
T18-005	FIX Post Trade Gateways (Derivatives Markets)	Y	Self-Conformance

Description:

Client performs an OFF BOOK Roll Trade

Comment:

You will already be connected from the previous test step. Perform roll trade strategy type trade report.

Activity Steps

#	Test Step	Expected Result
1.	Submit an Off Book Roll Trade (RT) strategy trade type Trade Report	The Report successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
2.	Record the details of the Trade Report in the Conformance Test Report	Interface User ID (CompID) Trade Report ID Trade ID

4.15 T19 Trading – Inverse Calendar Spreads

Test Case ID:	Trading – On-Book Strategies – Implied Orders	Mandatory	Self-Conformance / Supported Test
T19-001	Native Enhanced Gateway (Derivatives Markets)	Y	Self-Conformance

Description:
Execute a trade on an inverse calendar spread instrument

Comment:
Stay connected from the previous test step. Execute a trade on an inverse calendar instrument.

Activity Steps		
#	Test Step	Expected Result
1.	Enter an Order for an inverse calendar instrument	The order is successfully submitted and resides on the order book. Receive an Execution Report
2.	Record the details of the Order sent	Interface User ID (CompID) Client Order ID Security ID Security Type
3.	Enter an Order that matches the order submitted in step 1	The Order is successfully submitted and executes against the order from step 1.
4.	Record the details of the Execution Reports in the Conformance Test Report	Interface User ID (CompID) Execution IDs

4.16 T20 Trading – Iceberg Order (Native or FIX)

Test Case ID:	Trading – Iceberg Order (FIX or Native)	Mandatory	Self-Conformance / Supported Test
T20 - 001	FIX or Native Gateway (Equity Market)	Y	Self-Conformance

Description:

Successfully submit an Iceberg Order on the FIX or Native Trading Gateways

Comment:

In order for the Iceberg Order to be successfully submitted, the visible and total size is mandatory.

Activity Steps

#	Test Step	Expected Result
1.	Enter an Iceberg Order during continuous trading	The order is successfully submitted and resides on the order book. Receive an Execution Report.
2.	Record the details of the order message sent and the Execution Report in the Conformance Test Report.	Client Order ID Execution Type Order Status DisplayQty OrderQty Interface User ID (CompID)

Test Case ID:	Trading – Trade against the submitted Iceberg Order	Mandatory	Self-Conformance / Supported Test
T20 - 002	FIX or Native Gateway (Equity Market)	Y	Self-Conformance

Description:

Trade against an Iceberg Order

Comment:

Remain logged in from the previous step. Ensure that the Iceberg Order has met the required validations, based on the previous test. The test needs to be executed during the Continuous Trading session.

Activity Steps

#	Test Step	Expected Result
1.	Submit an Order to trade against the visible and hidden portion of the passive Iceberg order. Assume there is a match for this order in the order book.	The order will execute immediately upon successful match to fill both the visible size and the hidden size for of the passive order.
2.	Record the details of the order message sent and the Execution Report in the Conformance Test Report	Interface User ID (CompID) Order ID Client Order ID Public Order ID Execution Type Order Status
3.	Record the details of the order message sent and the Execution Report in the Conformance Test Report for an Order that was partially filled.	Interface User ID (CompID) Order ID Client Order ID Public Order ID Execution Type Order Status
4.	Locate the replenished Iceberg Order on the MITCH Market Data Gateway and record the Order ID in the Conformance Test Report.	Order ID

4.17   G1 Error Handling

Test Case ID:	All Gateways	Mandatory	Self-Conformance / Supported Test
G1-001	Logon after Suspension / Un-suspension	Y	Supported Test

Description:

Verify Logon after suspension or un-suspension of Interface User ID.
Call Customer Support to book time for executing this test with a CTA.

Comment:

This test case must be repeated for every interface / service that the client subscribes to I.e. **Repeat per Interface / Service that the client subscribes to: disconnect from connection**

- Trading Interfaces
    - o Native Trading Gateway
    - o Native Enhanced Trading Gateway
    - o Native Recovery Gateway
    - o Fix Trading Gateway
    - o Post Trade Gateway
    - o Drop Copy Gateway
- Information Interfaces
    - o FIX/FAST Replay Service (any channel)
    - o FIX/FAST Recovery Service (any channel)
    - o MITCH Replay Service
    - o MITCH
    - o Recovery Service

When executing this test case for the Information Services, please **choose any one channel** to connect to and provide details in the comments section of the Conformance Test Report

Activity Steps

#	Test Step	Expected Result
1.	Remain logged in to all interfaces/services where applicable Request CTA to suspend Interface User ID (CompID)	Interface User ID (CompID) suspended
2.	Establish a connection and Logon to the applicable Gateway(s).	Logon(s) rejected.
3.	Record the details of the Logon failure in the Conformance Test Report	Interface User ID (CompID) Error Response received
4.	Terminate all client connections. Request CTA to un-suspend Interface User ID (CompID)	Interface User ID (CompID) un-suspended
5.	Establish a connection and Logon to the applicable Gateway(s).	Logon(s) successful.
6.	Record the details of the Logon success Conformance Test Report	Interface User ID (CompID)

4.18   G2 FIX Session Handling

Test Case ID:	FIX Gateways – Trading interfaces	Mandatory	Self-Conformance / Supported Test
G2-001	Heartbeats during inactivity	Y	Supported Test

Description:

Verify the exchange of heartbeats between the client and server during periods of inactivity. Call Customer Support to book time for executing this test with a CTA.

Comment:

This test case is applicable if it can be supported by a client. I.e. the client is able to disable client initiated messages. This test is mandatory unless agreed with the JSE. Please choose any one channel from the below list to connect to and provide details in the comments section of the Conformance Test Report.

- Trading Interfaces
  - o   Fix Trading Gateway
  - o   Post Trade Gateway
  - o   Drop Copy Gateway

Activity Steps

#	Test Step	Expected Result
1.	Establish a connection and Logon to the applicable Gateway.	Successful Logon.
2.	Stays inactive i.e. make sure that there are no client initiated messages sent to the server.

Make sure there are no unexpected disconnects within a reasonable timeframe (a few minutes) | No client initiated messages sent to the server.

Server sending Heartbeat messages to the client.

Client is responding to Heartbeat messages sent by the server. |
| 3. | Record the test start time and whether any disconnects occurred in the Conformance Test Report | Gateway

Test Start Time

Test End Time

Interface User ID (CompID) |

Test Case ID:	FIX Gateways – Trading interfaces	Mandatory	Self-Conformance / Supported Test
G2-002	Client Resend Request	Y	Supported Test

Description:

Validate Client Resend Request.
Call Customer Support to book time for executing this test with a CTA.

Comment:

This test is mandatory unless agreed with the JSE. Please choose any one channel from the list below to connect to and provide details in the comments section of the Conformance Test Report.

- Trading Interfaces
    - o Fix Trading Gateway
    - o Post Trade Gateway
    - o Drop Copy Gateway

Activity Steps

#	Test Step	Expected Result
1.	Establish a connection and Logon to the applicable Gateway.	Successful Logon.
2.	Submit an Order and disconnect immediately The order will need to be an order that will not execute immediately in order to give you time to logoff and miss messages.	Order successfully submitted and has a valid order status. Server is sending Execution Report back to the client however the client is disconnected.
3.	Reconnect and Logon. Send a Resend Request message MsgType=2 with tags BeginSeqNo and EndSeqNo set to the sequence number of the Execution Report received while executing step 2 above.	Successful Logon. Server resends Execution Report back to the client.
3.	Record the test details in the Conformance Test Report	Gateway Test Start Time Test End Time Interface User ID (CompID) Execution ID Order ID

4.19 Optional Test Cases

NOTE: This section must be repeated for FIX Trading/Native Trading and Native Enhanced Trading interfaces where applicable.

Test Case ID:	Trading Gateway – Trading interfaces	Mandatory	Self-Conformance / Supported Test
OT1-001	Order Cancellation from different CompIDs	Y	Self-Conformance

Description:
Verify the cancellation of an Order from a CompID different to the one in the original Order Entry message.

Comment:
Remain logged in. The test needs to be executed during the Continuous Trading session.

Activity Steps		
#	Test Step	Expected Result
1.	Enter an Order through a specific CompID. Assume there is no matching order for this order in the order book.	The order is successfully submitted and resides on the order book. Receive an Execution Report.
2.	Cancel the Order through a different CompID to step 1.	The order is successfully cancelled. Receive an Execution Report.
3.	Record the details of the order messages sent and the Execution Report in the Conformance Test Report	Interface User IDs (CompIDs) Order IDs Client Order IDs Execution IDs

Test Case ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
OT1-002	Post Trade – Trade Cancellation	Y	Self-Conformance

Description:

Cancellation of a same day On Book Trade from a different CompID.

Comment:

Remain logged in. The test needs to be executed during the Continuous Trading session. **Cancel an On Book trade** executed on the same day.

Activity Steps

#	Test Step	Expected Result
1.	Enter an Order through a specific CompID that matches with another order from the same CompID.	Orders are matched and Trade Capture Report (TCR) is received
2.	Submit a Trade Capture Report to cancel a same day On Book trade from a different CompID.	Trade Report cancellation successfully submitted. Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).
3.	Record the details of the same day On Book cancellation Trade Capture Report in the Conformance Test Report.	Interface User IDs (CompIDs) Trade IDs Trade Report IDs OrigTradeID OrigTradeDate