Johannesburg Stock Exchange

JSE Trading and Information Solution

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

Version	3.06
Release Date	23/09/21
Number of Pages	83 (Including Cover Page)

DOCUMENT CONTROL 1

	1.1	Table of Contents	
1	DOCUM	IENT CONTROL	2
	1.1	Table of Contents	2
	1.2	Document Information	4
	1.3	Revision History	4
	1.4	References	6
	1.5	Contact Details	7
2	OVERV	IEW	8
3	SERVIC	E OVERVIEW	9
	3.1	Conformance Test Environment	9
	3.2	Mandatory Testing for Trading Interfaces	9
	3.3	Mandatory Testing for Information Interfaces	10
	3.4	Reference Data for Conformance tests	10
	3.5	High Volume Testing	10
	3.0	Conformance Test Process	10
	3.8	Conformance Test Report	12
	3.9	Conformance Policy	12
	3.10	Conformance Test Pricing	12
4	CONFO	RMANCE TEST SCENARIOS	12
	4.1	High Level Conformance Test Summary	13
	4.2	Information Conformance (Market Data)	14
4.2.111, 12	2, I3 Mar	ket Data – Level 1 FIX/FAST Replay Service	14
4.2.2I4 N	larket D	ata – Level 1 FIX/FAST Recovery Service	15
4.2.315 M	arket Da	ita – Full Depth/Top of Book MITCH Replay Service	19
4.2.410 M	arket Da	ita – Instrument Suspension	22
4.2.6I8 N	larket D	ata – Closing Price	23
4.2.719 –	Market [Data - Full Depth MITCH and/or Level 1 Replay Service - Extended Stats Message) 24
4.2.8 10 -	 Market 	Data - Full Depth MITCH and/or Level 1 Replay Service - Cross Order	25
4.2.9111 -	- Market	Data - Full Depth MITCH and/or Level 1 Replay Service - Pegged Order	25
4.2.10112	2 – Mark 2 Mark	et Data - Full Depth MITCH and/or Level 1 Replay Service - Volume Auction trade	26 call trade 26
4.2.1111.	4.3	Trading Conformance	20 27
4.3.1T1 T	rading -	Logon 27	21
4.3.2T2 T	rading -	Auction Order Management	28
4.3.3T3 T	rading -	Continuous Trading Order Management	29
4.3.4T4 T	rading -	Native Trading Recovery	40
1 3 5T5 E	4.4 POS	t Trade Gateway Conformance	41
4.3.515 F	ost Trac	le Gateway - Single Sided Trade Reporting	45
4.3.7T7 F	Post Trac	le Gateway – Post Contra Trade (PC)	48
4.3.8T8 F	Post Trac	le - Own Trades Book Download (OTBD)	49
	4.5 T9 [Drop Copy Gateway	49
	4.6 T10	On Behalf of Actions (Native/Native Enhanced and FIX Trading)	50
	4.4	111 Trading – Cross Order (FIX or Native, FIX Drop Copy and FIX, Post Trade)	54 55
	4.5	T13 Trading – Pegged Cider (FIX or Native, FIX Drop Copy and FIX, Post Trade)	rade) 57
	4.7	T14 Trading – EOD Volume Auction Uncross (FIX or Native, FIX Drop Copy and 59	FIX, Post Trade)
	4.8	T15 Trading – Quotes	61
	4.9	T16 Trading – User Created Instruments	61
	4.10	T17 Trading – On-Book Strategies	65
	4.11 / 12	1 18 Trading – UIT-BOOK Strategles	00 71
	4.16 T2	0 Trading – Iceberg Order (Native or FIX)	72
	4.17 T2	1 Trading – Liquidity Indicator (Native or FIX)	75

26

4.18 T22 Trading – Working Indicator (Native)	76
4.19 T23 Trading – Real Time Circuit Breaker Alerts to Brokers (Drop Copy)	77
4.20 T24 Trading – FX Auction Automation	78
4.21 G1 Error Handling	81
4.22 G2 FIX Session Handling	82
4.23 Optional Test Cases	84

1.2 Document Information

Drafted By	JSE Trading and Market Services
Status	Final
Version	3.06
Release Date	23/09/2021

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
20 February 2020	3.04	4.3.1	Update Changes to Password and New Password fields on the Logon message scenarios and Inclusion of Protocol Version message
		4.12	Inclusion of User Created Instruments – using Instrument ID conformance test
			Removal of Fwd Fwds conformance test case
		4.17	Inclusion of Liquidity Indicator Conformance test scenario
		4.18	Inclusion of Working Indicator Conformance test scenario
		4.19	Inclusion of Real Time Circuit Breaker Alerts to Brokers Conformance test scenario
20 November 2020	3.05	4.3.1	New Protocol version introduced: Icebergs - Logon to Protocol Version 2
		4.16	New Protocol version introduced: Icebergs - Logon to Protocol Version 2
		4.20	Introduction of Trading – FX Auction Automation

23 September 2021	3.06	4.3.5 4.3.6	Addition of conformance Trades, Commission Fee	tests	for	Delayed	Block

1.4 References

None

JSE Limited Trading and Market Services One Exchange Square Gwen Lane, Sandown	Client Services Centre Email: <u>CustomerSupport@jse.co.za</u> Tel: +27 11 520 7777
South Africa Tel: +27 11 520 7000	https://www.jse.co.za/services/itac
www.jse.co.za	

Disclaimer: All rights in this document vests in the JSE Limited ("JSE") and Millennium IT Software (Private) Limited ("Millennium IT"). Please note that this document contains confidential and sensitive information of the JSE and Millennium IT and as such should be treated as strictly confidential and proprietary and with the same degree of care with which you protect your own confidential information of like importance. This document must only be used by you for the purpose for which it is disclosed. Neither this document nor its contents may be disclosed to a third party, nor may it be copied, without the JSE's prior written consent. The JSE endeavours to ensure that the information in this document is correct and complete but do not, whether expressly, tacitly or implicitly, represent, warrant or in any way guarantee the accuracy or completeness of the information. The JSE, its officers and/or employees accept no liability for (or in respect of) any direct, indirect, incidental or consequential loss or damage of any kind or nature, howsoever arising, from the use of, or reliance on, this information.

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 <u>five interfaces for Trading</u> 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 <u>two interfaces for information</u> 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.
- 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.

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.

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.

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
13	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
17	Market Data – Instrument Suspension (Lvl1 & Full Depth)	Y	N
18	Market Data – Closing Price Market Data – Instrument Suspension (Lvl1 & Full Depth)	Y	N
19	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	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
Т3	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
Т8	Post Trade – Own Trades Book Download (OTBD)	N	Y
Т9	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	Ν	Y
T16	Trading - User-Created Instruments	Ν	Y
T17	Trading - On Book Strategies	Ν	Y
T18	Post Trade - Off-Book Strategies	Ν	Y
T19	Trading - Calendar Spreads	N	Y
T20	Trading – Iceberg Orders	Ν	Y
T21	Trading - Liquidity Indicator field	Ν	Y
T22	Trading - Working Indicator field	Ν	Y
T23	Trading – Real Time Circuit Breaker Alerts	Ν	Y

T24	Trading - FX Auction Automation (Native)	Ν	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
11-00	Market Data – Level 1 FIX/FAST Replay Service (Equity Market)		
12-00	D1 Market Data – Indices FIX/FAST Replay Service (All Markets)	Y	Self Conformance per Gateway
13-00	D1 Market Data – Regulatory News FIX/FAST Replay Service (All Markets)		, , , , , , , , , , , ,
Descr	iption:		
Logon Applic alread	to the Replay Channel of each Gateway that y ation Message Request to request the retransmiss y published on the real time (multicast channel.)	ou will subscribe sion of a small rar	to and send an nge of messages
Comn	nent:		
The A	pplication Message Request must be sent within 5	seconds of a suc	ccessful logon.
Activi	ty Steps		
Activi #	ty Steps Test Step	Expected Resu	lt
Activi # 1.	ty Steps Test Step Establish a connection and logon to the Replay service	Expected Resu Successful Logo	lt on
Activi # 1. 2.	ty Steps Test Step Establish a connection and logon to the Replay service Send An Application Message Request	Expected Result Successful Logo Receive a succe Application Mes Ack.	It on essful sage Request
Activi # 1. 2.	ty Steps Test Step Establish a connection and logon to the Replay service Send An Application Message Request	Expected Result Successful Logo Receive a succe Application Mes Ack. Receive request	It on essful sage Request red messages.
Activi # 1. 2.	ty Steps Test Step Establish a connection and logon to the Replay service Send An Application Message Request	Expected Result Successful Logo Receive a succe Application Mes Ack. Receive request Receive an App Report to indicat transmission.	It on essful sage Request red messages. lication Message te completion of
Activi # 1. 2. 3.	ty Steps Test Step Establish a connection and logon to the Replay service Send An Application Message Request Record the details of the Application Message Request sent in the Conformance Test Report	Expected Result Successful Logo Receive a succe Application Mes Ack. Receive request Receive an App Report to indicat transmission. ApplReqID	It on essful sage Request red messages. lication Message te completion of

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

Test Case I	ID: Gateway Description Mandatory		Self Conformance / Supported Test	
14-00	01	Market Data – Level 1 FIX/FAST Recovery Service (Equity Market)	Y Self Conforma	
Descr	iptio	n:		
Logon the de	to th tails	e Recovery Channel and send a Security Define of all active instruments and all active instrum	nition Request nents by segme	Message to request ent.
Comm	nent:			
The <mark>S</mark> logon.	ecuri	ty Definition Request Message must be sent	t within 5 seco	nds of a successful
Activi	ty St	eps		
#	Tes	t Step	Expected Re	sult
1.	Esta Rec	ablish a connection and logon to the covery service	Successful Logon	
2.	Ser by s	nd a Security Definition Request Message segment	Receive a details of each each instrument via the Security Definition message	
3.	Rec Rec Tes	cord the details of the Security Definition quest Message sent in the Conformance t Report	SecurityReqID	
4.	Ser for a	nd a Security Definition Request Message all instruments	Receive a details of each each instrument via the Security Definition message	
5.	Rec Rec Tes	cord the details of the Security Definition quest Message sent in the Conformance t Report	SecurityReqID	

Test Case I	D: Gateway Description	Mandatory	Self Conformance / Supported Test				
14-00	Market Data – Level 1 FIX/FAST Recovery Service (Equity Market)	Y	Self Conformance				
Descr	Description:						
Stay lo	ogged in and send a Market Data Request mes t order book or statistics for one or more instrume	sage to reques ents in the mark	a snapshot of the tet data group.				
Comm	ent:						
The M the las	arket Data Request message must be sent withi t successful application message.	n 5 seconds of	the transmission of				
Activit	y Steps						
#	Test Step	Expected Re	sult				
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 t					
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	MDReqID (262)					

Test Case	ID:	Gateway Description	Mandatory	Self Conformance / Supported Test	
14-00	03	Market Data – Level 1 FIX/FAST Recovery Service (Equity Market)	Y	Self Conformance	
Descr	Description:				
Stay lo curren	ogge nt ord	d in and send a Market Data Request mess er book or statistics by segment	age to reques	t a snapshot of the	
Comn	nent:				
The M the las	larket st suc	t Data Request message must be sent withir cessful application message.	n 5 seconds of	the transmission of	
Activi	ty St	eps			
#	Test Step Expected Result			sult	
1.	Ser requ for a	nd a Market Data Request message and uest a snapshot of the current order book 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.	Rec mes	cord the details of the Market Data Request ssage sent in the Conformance Test Report	MDReqID (26	62)	
3.	Ser req seg	nd a Market Data Request message and uest a snapshot of the statistics for a ment.	Receive a sn statistics for e the segment Snapshot (Fu message	apshot of the each instrument in via a Market Data Ill Refresh)	
4.	Rec mes	cord the details of the Market Data Request ssage sent in the Conformance Test Report	MDReqID (20	62)	

Test Case	ID:	Gateway Description	Mandatory	Self Conformance / Supported Test	
14-0	04	Market Data – Level 1 FIX/FAST Recovery Service (Equity Market)	Y	Self Conformance	
Descr	riptio	n:			
Stay lo or mo the ins	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.				
Comn	nent:				
The M the las	<mark>larke</mark> st suc	t Data Request message must be sent withir cessful application message.	n 5 seconds of	the transmission of	
Activi	ity St	eps			
#	Tes	t Step	Expected Re	sult	
1.	Ser mis	nd a Market Data Request message for sed Trades in a specific instrument.	Receive all the trades for the specified instruments via a Market Data Snapshot (Full Refresh) message		
2.	Rec mes	cord the details of the Market Data Request ssage sent in the Conformance Test Report	MDReqID (262) SecurityID(48) ProductComplex (1227)		
3.	Ser mis	nd a Market Data Request message for sed Trades in a segment	Receive all the trades for the specified segment via a Market Data Snapshot (Full Refresh) message		
4.	Rec mes	cord the details of the Market Data Request ssage sent in the Conformance Test Report	MDReqID (262)		
5.	Log trar	out and Disconnect within 5 seconds of the ismission of the last application message	Logout mess client and con terminated. If this is no specified tim terminate the	age sent by the nnection of done within the ne, the server will client connection.	

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

Test Case I	ID:	Gateway Description	Mandatory	Self Conformance / Supported Test	
15-00	01	Market Data – Full Depth MITCH Replay Service (All Markets)	Y Self Conformance		
Descr	iptio	n:			
Logon scale)	Logon and send Replay Request to request retransmission of a limited number (small-scale) of messages already published on the Real-Time channel.				
Comm	nent:				
The R	eplay	Request message must be sent within 5 second	onds of the trar	nsmission of the last	
succes	ssful	application message.			
Activi	ty St	eps			
#	Tes	t Step	Expected Result		
1.	Esta serv	ablish a connection and logon to the Replay <i>r</i> ice	Successful Logon		
2.	Sen	d a Replay Request message	Receive a su Response to	ccessful <mark>Replay</mark> the request.	
			Receive requ	ested messages.	
3.	Rec	cord the details of the Replay Request	Market Data	Group	
	mod		First Messag	e and	
			Count		
4.	Log tran	out and Disconnect within 5 seconds of the smission of the last application message	Logout mess client and con terminated. If this is no specified tim terminate the	age sent by the nnection of done within the ne, the server will 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	
16-0	01	Market Data – Full Depth MITCH Recovery Service (All Markets)	Y	Self-Conformance
Descr	riptio	n:		
Logon or maj	i and jor ou	send Snapshot Request to recover from a lar tage)	rge-scale data	loss (i.e. later joiner
Comn	nent:			
The <mark>S</mark> last ຣເ	naps ucces	hot Request message must be sent within 5 s sful application message.	seconds of the	transmission of the
Activi	ity St	eps		
#	Tes	t Step	Expected Re	sult
1.	Esta serv	ablish a connection and logon to the Replay <i>v</i> ice	Successful L	ogon
2.	Ser deta	ad a Snapshot Request message to request ails of the order book for one instrument	Receive a su Response to	ccessful Snapshot the request.
			Receive the of Add Order	disseminated series messages
			Receive the smessage	Snapshot Complete
3.	Rec	cord the details of the Snapshot Request	Sequence Nu	umber
	message sent in the Conformance Test Report		Segment	
			Instrument ID)
4.	Ser a sr	ad a Snapshot Request message to request hapshot of the current order book for all	Receive a su Response to	ccessful Snapshot the request.
	Inst	ruments in a segment	Receive the of Add Order	disseminated series messages
			Receive the Snapshot Complete message	
5.	Rec	cord the details of the Snapshot Request	Sequence Nu	umber
	me	ssage sent in the Comonnance Test Report	Segment	
			Instrument ID)
6.	Ser	ad a Snapshot Request message to request	Receive a su	ccessful Snapshot
	a Statistics snapshot of the all sub books for all instruments in a segment		Receive the o	disseminated series
			Receive the S	Snapshot Complete
7	Rec	cord the details of the Spapshot Request	Sequence Ni	umber
	mes	ssage sent in the Conformance Test Report	Compart	
			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		
16-0	02	Market Data – Top of Book MITCH Recovery Service (Derivatives Markets)	Y Self-Conformance			
Descr Logon or maj	Description: Logon and send Snapshot Request to recover from a large-scale data loss (i.e. later joiner or major outage)					
Comn The S last su	nent: napsl ucces	not Request message must be sent within 5 s sful application message.	seconds of the	transmission of the		
Activi	ity Ste	eps				
#	Tes	t Step	Expected Re	sult		
1.	Esta serv	ablish a connection and logon to the Replay /ice	Successful L	ogon		
2.	Sen deta	d a Snapshot Request message to request ails of the Top of Book for one instrument	Receive a su Response to	ccessful Snapshot 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 Nu	umber		
			Segment			
			Instrument IE)		
4.	Sen deta	d a Snapshot Request message to request ails of the Top of Book per segment	Receive a su Response to	ccessful Snapshot the request.		
			Receive the of Top of Boo	disseminated series ok 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 IL)		
6.	Log tran	out and Disconnect within 5 seconds of the smission of the last application message	ds of 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 ID:	Case	Gateway Description	Mandatory	Self-Conformance / Supported Test
17 - 0	001	Market Data - Instrument Suspension (All Markets)	Y	Supported Test
Descr	ription			
CTA to instrur	o susp ment cl	end an Instrument. Client confirms receipt o losing price.	of the suspensi	on and confirms the
Comn	nent:			
Client	to bind	and subscribe to multicast data channel.		
Call C	ustom	er Support to book time for executing this te	st with a CTA.	
Activi	ty Ste	ps		
#	Test	Step	Expected Re	sult
1.	Requ susp	lest Customer Test Analyst (CTA) to end an Instrument	Instrument su suspended.	uccessfully
	Receive Instrument status change of the suspended instrument and the published instrument closing price.			
2.	Reco	rd the details of the suspended	Interface Use	er ID (CompID)
	Instru	iment in the Conformance Test Report	Instrument ID	
			Instrument C	losing 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 ID:	Case	Gateway Description	Mandatory	Self Conformance / Supported Test		
I8 - C	001	Market Data – Closing Price (All Markets)	Y	Supported Test		
Descr	Description:					
CTA to update	CTA to reissue the Closing Price of an Instrument. Client confirms receipt and value of the updated Closing Price.					
Comn	nent:					
Client	to bind	and subscribe to multicast data channel.				
Call C	ustom	er Support to book time for executing this te	st with a CTA.			
Activi	ty Ste	ps				
#	Test	Step	Expected Re	sult		
1.	Requ reiss	lest Customer Test Analyst (CTA) to ue the Closing Price of an Instrument	Instrument Closing Price reissued			
			Receive reise	sued Closing Price.		
2.	Reco	rd the details of the reissued Closing	Interface Use	er ID (CompID)		
	Test	e of the instrument in the Conformance	Instrument ID)		
			Instrument C	losing Price		

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

Test ID:	Case	Gateway Description	Mandatory	Self-Conformance / Supported Test			
109 - 0	001	Market Data - Full Depth MITCH and/or Level 1 Replay Service -Extended Stats Message (All Markets)	Y	Self-Conformance			
Descri	iption:						
Client	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) 						
Comm	nent:						
Client	submi	ts a replay request message where each of	the above valu	ues have changed			
Activit	y Step	S					
#	Test	Step	Expected Re	sult			
1.	Estat servi	olish a connection and logon to the Replay ce	Successful Logon				
2.	Send	l a Replay message request	Receive a successful response to the request.				
			Receive requ	lested messages.			
			In the extend	ed stats message:			
			High/low price updated for on/off book trade				
			Volume upda	ited			
			Nr of Trades	updated			
			VWAP updat	ed			
	_		InstrumentID				
3.	Reco Confe	ord the details of the response sent in the ormance Test Report	Sequence number				
			Order Book				
4.	Logo trans	ut and Disconnect within 5 seconds of the mission 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 ID:	Case	Gateway Description	Mandatory	Self-Conformance / Supported Test
l10 - C	01	Market Data - Full Depth MITCH and/or Level 1 Replay Service - Cross Order (Equity Market)	Y Self-Conformance	
Descr	iption			
Client	reques	sts a replay of a Trade Message resulting fro	om a successf	ul Cross order
Activit	y Step	S		
#	Test	Step	Expected Result	
1.	Estat servi	olish a connection and logon to the Replay ce	Successful Logon	
2.	Send	a Replay message request	Receive a successful response to the request.	
			Receive requested message.	
3.	Reco sent	rd the details of the response message in the Conformance Test Report	Sequence number	
4.	Logo trans	gout and Disconnect within 5 seconds of the Insmission of the last application message Insmission of the last application message		age sent by the nnection of done within the ne, the server will client connection.

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

Test ID:	Case	Gateway Description	Mandatory	Self-Conformance / Supported Test
l11 - C	001	Market Data - Full Depth MITCH and/or Level 1 Replay Service - Pegged Order (Equity Market)	Y Self-Conforman	
Description				
Client	reques	sts a replay of a Trade Message resulting fr	om a successf	ul Pegged Order
Activit	y Step	S		
#	Test	Step	Expected Result	
1.	Estat servi	olish a connection and logon to the Replay ce	Successful Logon	
2.	Send	a Replay message request	Receive a su to the reques	ccessful response t.
			Receive requ	lested message
3.	Reco sent	rd the details of the response message in the Conformance Test Report	Sequence number	
4.	Logout and Disconnect within 5 seconds of the transmission of the last application message for the seconds of the second terminated.		age sent by the nnection of done within the ne, the server will 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
l12 - 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 ID:	Case	Gateway Description	Mandatory	Self-Conformance / Supported Test	
112113 001	-	Market Data – Full Depth MITCH/Level 1 FIX/FAST Replay Service – EOD Volume Auction call (Equity Market)	Y Self-Conformanc		
Description:					
Activit	y Step	S			
#	Test	Step	Expected Result		
1.	Estat servi	olish a connection and logon to the Replay ce	Successful Logon		
2.	Send	a Replay message request	Receive a successful response to the request.		
			Receive requested message		
3.	Reco sent	rd the details of the response message in the Conformance Test Report	Sequence number		
4.	Logo trans	ut and Disconnect within 5 seconds of the mission 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 wil 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 I	ID:	Trading Gateway	Mandatory	Self Conformance / Supported Test			
T1-00	01	Trading Connect / Login (All Markets)	Y	Self Conformance			
Descr	Description:						
Establ	Establish a connection, Logon and change your password.						
Comm	nent:						
The Lo TCP/IF	o <mark>gon</mark> P cor	message must be sent within 15 seconds of t nnection.	he transmissio	n of establishing the			
Activit	ty St	eps					
#	Tes	st Step	Expected Result				
1.	Esta req Gat	ablish a connection and issue a Logon uest message with new password to the reway	Successful Logon				
2.	Suc	ccessful login with new password accepted	Receive a successful Login Response.				
			Logon Message to cater for a minimum of 12 and a maximum of 25 length (Only applicable to Native Gateway)				
3.	Rec in th	cord the details of the Logon message sent the Conformance Test Report	Interface Use	er ID (CompID)			

Test Case I	ID:	Trading Gateway	Mandatory	Self Conformance / Supported Test			
T1-00	02	Trading Connect / Login (All Markets)	N	Self Conformance			
Descr	Description:						
Establ	ish a	connection, Logon and change your passwo	rd.				
Comm	nent:						
Logge	d on	to Protocol Version 2					
Activit	ty St	eps					
#	Tes	t Step	Expected Result				
1.	Log 'Pro 'Log	into the system using value '2' for the stocol version' field in the Native Gateway g on' message.	Successfully logged on to Protocol Version 2				
2.	Suc	cessful login with new password accepted	Receive a successful Login Response.				
			Logon Message to cater for a minimum of 12 and a maximum of 25 length (Only applicable to Native Gateway)				
3.	Rec in th	cord the details of the Logon message sent the Conformance Test Report	Interface Use	er 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 I	Trading Gateway D:	Mandatory	Self Conformance / Supported Test			
T2-00	Trading – Auction Market Orders (All Markets)	Y	Self Conformance			
Descri	Description:					
Validat	Validate Market Orders during an Auction period.					
Comm	ent:					
Remai Openir	n logged in from previous step. The test ng/Closing auction session.	needs to be e	xecuted during the			
Activit	y Steps					
#	Test Step	Expected Re	esult			
1.	Enter a Market Order.	Receive an	Execution Report.			
	Assume there is a match for this order in the order book. If a matching order in the order book, please create one.	The order go book and wil auction uncr	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 I	Receive an Execution Report.			
3.	Record the details of the order message sent	Interface Use	er ID (CompID)			
	and the Execution Reports in the Conformance Test Report	Order ID				
		Client Order	ID			
		Execution ID	1			
		1				

Test Case I	D: Trading Gateway	Mandatory	Self Conformance / Supported Test			
T2-00	Trading – Auction Limit Orders (All Markets)	Y	Self Conformance			
Descri	Description:					
Validat	e Limit Orders during an Auction period.					
Comm	ent:					
Remai Openir	n logged in from previous step. The test n ng/Closing auction session.	eeds to be ex	xecuted during the			
Activit	y Steps					
#	Test Step	Expected Re	sult			
1.	Enter a Limit Order.	Receive an E	Execution Report.			
	Assume there is a match for this order in the order book. If a matching order in the order book, please create one.	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 E	Execution Report.			
3.	Record the details of the order message sent	Interface Use	er ID (CompID)			
	and the Execution Reports in the Conformance Test Report	Order ID				
		Client Order	ID			
		Execution ID	S			

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 I	ID:	Trading Gateway	Mandatory	Self Conformance / Supported Test			
Т3-0	01	Trading – Continuous Trading Market Orders (All Markets)	Y	Self Conformance			
Descr Valida	Description: Validate Aggressive Market Orders during the Continuous Trading period. This is an un-						
priced	orde	r					
Comm Remai Tradin	n ent: in log ng ses	ged in from previous step. The test needs to b sion.	be executed du	ring the Continuous			
Activity Steps							
ACUVI	., 0.	243					
#	Test	t Step	Expected Re	sult			
# 1.	Test Ente	t Step er an aggressive Market Order (IOC or	Expected Re The order ex	sult ecutes immediately.			
# 1.	Test Ente FOR	t Step er an aggressive Market Order (IOC or <).	Expected Re The order ex Receive an E	sult ecutes immediately. Execution Report.			
# 1.	Test Ente FOR Assi orde	t Step er an aggressive Market Order (IOC or K). ume there is a match for this orders in the er book. If no matching orders exist in the er book, please create these.	Expected Re The order ex Receive an E	sult ecutes immediately. Execution Report.			
# 1. 2.	Tesi Ente FOr Assi orde orde	t Step er an aggressive Market Order (IOC or K). ume there is a match for this orders in the er book. If no matching orders exist in the er book, please create these. ord the details of the order message sent	Expected Re The order ex Receive an E	sult ecutes immediately. Execution Report. er ID (CompID)			
# 1. 2.	Test Ente FOM Ass orde orde Rec and Test	t Step er an aggressive Market Order (IOC or K). ume there is a match for this orders in the er book. If no matching orders exist in the er book, please create these. ord the details of the order message sent the Execution Report in the Conformance t Report	Expected Re The order ex Receive an E Interface Use Order ID	sult ecutes immediately. Execution Report. er ID (CompID)			
# 1. 2.	Test Ente FOR Asse orde orde Rec and Test	t Step er an aggressive Market Order (IOC or K). ume there is a match for this orders in the er book. If no matching orders exist in the er book, please create these. ord the details of the order message sent the Execution Report in the Conformance t Report	Expected Re The order ex Receive an E Interface Use Order ID Client Order	sult ecutes immediately. Execution Report. er ID (CompID)			

Test Case I	ID:	Trading Gateway	Mandatory	Self Conformance / Supported Test			
Т3-0	02	Trading – Continuous Trading Limit Orders (All Markets)	Y	Self Conformance			
Descr	Description:						
Valida	te Ag	gressive Limit Orders during the Continuous	Trading period	J.			
Comm	nent:						
Remai Tradin	in log g ses	ged in from previous step. The test needs to b ssion.	be executed du	ring the Continuous			
Activi	ty St	eps					
#	Tes	t Step	Expected Re	sult			
1.	Ent	er an aggressive Limit Order (IOC or FOK).	The order ex	ecutes immediately.			
	Ass orde orde	sume there is a match for this order in the er book. If no matching orders exist in the er book, please create these.	Receive an E	execution Report.			
2.	Rec	cord the details of the order message sent	Interface Use	er ID (CompID)			
	and Tes	the Execution Report in the Conformance	Order ID				
		'	Client Order	ID			
			Execution ID	S			

Test Case	D: Trading Gateway	Mandatory	Self Conformance / Supported Test				
Т3-0	D3 Trading – Continuous Trading Limit Orders (All Markets)	Y	Self Conformance				
Description:							
Valida	te Passive Limit Orders during the Continuous T	ading period.					
Comn	nent:						
Rema Tradin	n logged in from previous step. The test needs to g session.	be executed du	iring the Continuous				
Activi	ty Steps						
#	Test Step	Expected Result					
1.	Enter a passive Limit Order.	The order goes onto the order book.					
		Receive an E	Execution Report.				
2.	Assume there is a match for this order in the order book. If no matching orders exist in the	The order executes up to the limit price on the order.					
	order book, please create one.	Receive an E	Execution Report.				
2							
3.	Record the details of the order message sent	Interface Use	er ID (CompID)				
3.	Record the details of the order message sent and the Execution Report in the Conformance Test Report	Interface Use Order ID	er ID (CompID)				
3.	Record the details of the order message sent and the Execution Report in the Conformance Test Report	Interface Use Order ID Client Order	er ID (CompID) ID				

Test Case	D: Trading Gateway	Mandatory	Self Conformance / Supported Test					
T3-0	Trading – Continuous Trading Stop Orders (All Markets)	Y	Self Conformance					
Descr	Description:							
Valida	Validate Stop Orders during the Continuous Trading period.							
Comn	ent:							
Rema Tradin	n logged in from previous step. The test needs to g session.	be executed du	uring the Continuous					
Activi	y 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	Interface Use	er ID (CompID)					
	Test Report	Order ID						
	·	Client Order	ID					
		Execution ID	S					

Test Case	D: Trading Gateway	Mandatory	Self Conformance / Supported Test					
Т3-0	D5 Trading – Continuous Trading Stop Orders (All Markets)	Limit Y	Self Conformance					
Descr	Description:							
Valida	e Stop Limit Orders during the Continuous	Trading period.						
Comn	ent:							
Rema Tradin	n logged in from previous step. The test ne g session.	eds to be executed	during the Continuous					
Activi	y Steps							
#	Test Step	Expected	Expected Result					
1.	Enter a Stop Limit Order.	The order until the st	The order will remain unelected until the stop price is reached.					
		Receive a	Receive an Execution Report.					
2.	Assume there is a match for this order in order book. If no matching orders exist in	the The order executes.	The order is elected and executes.					
	order book, please create one.	Receive a	Receive an Execution Report.					
3.	Record the details of the order messages	ent Interface l	Jser ID (CompID)					
	Test Report	Order ID	Order ID					
		Client Ord	er ID					
		Execution	IDs					

Test Case I	ID: T	rading Gateway	Mandatory	Self Conformance / Supported Test			
Т3-0	06 T	rading – Continuous Trading Amend Drders <mark>(All Markets)</mark>	Y	Self Conformance			
Descr	Description:						
Valida	Validate Order modification during the Continuous Trading period.						
Comm	nent:						
Remai Tradin	in logge g sessi	ed in from previous step. The test needs to b on.	be executed du	ring the Continuous			
Activi	ty Step	IS					
#	Test S	Step	Expected Result				
1.	Enter	an Order.	The order is successfully submitted and resides on the order book.				
	Assun order	ne there is no matching order for this in the order book.	Receive an Execution Report.				
2.	Amen	d the Order.	The order is successfully amended.				
			Receive an E	xecution Report.			
3.	Recor	d the details of the order messages sent	Interface Use	r ID (CompID)			
	and th	e Execution Report in the Conformance	Order ID				
	10011		Client Order	ID			
			Execution ID:	S			

Test Case I	D: Trading Gateway	Mandatory	Self-Conformance / Supported Test			
Т3-0	D7 Trading – Continuous Trading Cano Order (All Markets)	el 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 Re	Expected Result			
1.	Enter an Order.	The order is submitted an order book.	The order is successfully submitted and resides on the order book.			
	Assume there is no matching order for this order in the order book.	Receive an E	Receive an Execution Report.			
2.	Cancel the Order.	The order is cancelled.	The order is successfully cancelled.			
		Receive an E	Execution Report.			
3.	Record the details of the order messages sent and the Execution Report in the Conformance Test Report	t Interface Use	Interface User ID (CompID)			
		Order ID	Order ID			
		Client Order	Client Order ID			
		Execution ID	Execution IDs			
# 1. 2. 3.	Enter an Order. Assume there is no matching order for this order in the order book. Cancel the Order. Record the details of the order messages ser and the Execution Report in the Conformance Test Report	The order is submitted an order book. Receive an E The order is cancelled. Receive an E Interface Use Order ID Client Order	Expected Result The order is successfully submitted and resides on the order book. Receive an Execution Report. The order is successfully cancelled. Receive an Execution Report. Interface User ID (CompID) Order ID Client Order ID Execution IDs			

Test Case	D: Trading Gateway	Mandatory	Self-Conformance / Supported Test			
Т3-0	D8 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	The orders are successfully submitted and reside on the order book.				
	Ensure there are no matching orders for these orders in the order book.	Receive Execution Reports.				
2.	Cancel all open orders.	The orders are successfully cancelled.				
		Receive Exe Order Mass	cution Reports and 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		
----------------	------------------	---	---	--------------------------------------	--	--
Т3-0	9	Trading – Continuous Trading Cancel on disconnect (All Markets)	Y Self-Conformance			
Descr	Description:					
Valida	te Ca	ancel on disconnect.				
Comn	nent:					
Rema Tradin	in log Ig ses	ged in from previous step. The test needs to b ssion.	be executed du	ring the Continuous		
Activi	ty St	eps				
#	Tes	t Step	Expected Re	sult		
1.	Ent	er 5 Order non-executable regular orders	The orders are successfully submitted and reside on the order book.			
	Ens orde	ure there are no matching orders for these ers in the order book.	Receive Execution Reports.			
2.	Ter disc	minate the session by generating a TCP connect for Cancel on disconnect.	Client session is terminated.			
3.	Esta	ablish a connection and Logon	Successful L	ogon.		
4.	Ver	ify the status of orders entered in step 1	All orders are	e cancelled.		
	abo	ve.	Receive Execution Reports for cancelled orders.			
			NOTE: For Native Trading, recover missed messages via the recovery channel)			
3.	Rec	ord the details of the order messages sent	Interface Use	er ID (CompID)		
	and Tes	the Execution Reports in the Conformance at Report	Order IDs			
		•	Client Order IDs			
			Execution ID	S		

Test Case I	D: Trading Gateway	Mandatory	Self-Conformance / Supported Test		
T3-01	Trading Continuous Trading Exclude Hidden Limit Orders (Equity Market) Equity Market) Exclude Exclude	¥	Self-Conformance		
Descri	ption:				
Validat	e Exclude Hidden Limit Orders during Continuous	s Trading peric	id.		
Comm	ent:				
Remai	n logged in from previous step. The test needs to l	pe executed du	iring the Continuous		
Iradin	g sossion.				
Activit	Activity Steps				
#	Test Step	Expected Re	sult		
# 1.	Test Step Enter Exclude Hidden Limit Order	Expected Re The order is submitted an order book.	sult successfully d resides on the		
# 1.	Test Step Enter Exclude Hidden Limit Order	Expected Re The order is submitted an order book. Receive Exe	sult successfully d resides on the cution Report.		
# 1. 2.	Test Step Enter Exclude Hidden Limit Order Record the details of the order messages sent	Expected Re The order is submitted an order book. Receive Exe Interface Use	sult successfully d resides on the cution Report. or ID (CompID)		
# 1. 2.	Test Step Enter Exclude Hidden Limit Order Record the details of the order messages sent and the Execution Reports in the Conformance Test Report	Expected Re The order is submitted an order book. Receive Exe Interface Use Order ID	sult successfully d resides on the sution Report. er ID (CompID)		
# 1. 2.	Test Step Enter Exclude Hidden Limit Order Record the details of the order messages sent and the Execution Reports in the Conformance Test Report	Expected Re The order is submitted an order book. Receive Exe Interface Use Order ID Client Order	sult successfully d resides on the cution Report. or ID (CompID)		
# 1. 2.	Test Step Enter Exclude Hidden Limit Order Record the details of the order messages sent and the Execution Reports in the Conformance Test Report	Expected Re The order is submitted an order book. Receive Exe Interface Use Order ID Client Order Execution ID	sult successfully d resides on the cution Report. or ID (CompID)		

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.

Activi	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	D: Native Enhanced Trading Gateway	Mandatory	Self-Conformance / Supported Test				
T3-0	L2 Trading – Continuous Trading Market if touched Orders (Derivative)	Y	Self-Conformance				
Descr	Description:						
Valida	te Market if Touched Order during the Continuou	s Trading perio	d.				
Comn	nent:						
Remai Tradin	n logged in from previous step. The test needs to g session.	be executed du	uring the Continuous				
Activi	ty Steps						
#	Test Step	Expected Re	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	The order is elected and executes.					
	order book, please create one.	Receive an Execution Report.					
3.	Record the details of the order message sent	Interface Use	er ID (CompID)				
	Test Report	Order ID					
		Client Order	ID				
		Execution ID	S				

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		
T4-0	01	Trading – Recovering Missed Messages (All Markets)	Y	Self-Conformance		
Descr	Description:					
Prove	Prove Native Trading recovery of missed messages					
Comn	nent:					
Rema Tradin Recov	in log ig ses very s	iged in from previous step. The test needs to b ssion. The same CompID must be used for b ervice	be executed du both the Native	rring the Continuous Trading and Native		
Activi	ty St	eps				
#	Tes	t Step	Expected Re	sult		
1.	Ent	er 5 Orders and disconnect.	Receive Exe orders.	cution Reports for		
			Successful logoff.			
2.	Wa has	it for a period of time to ensure your order executed or expired.	Successful L and recovery	ogon to real time services.		
	Cor serv	nnect and Logon to the real time recovery vices with the same CompID.	Request miss	sed messages.		
	Rec	quest missed messages.	Missed Message Report.			
3.	Log with	out from the Native Recovery service in 3 heartbeat intervals.	Logout succe recovery ses	essfully and sion terminated.		
	The con hea	e recovery service will disconnect a client's nection if there is no activity for 3 rtbeats.				
4.	Rec	cord the details of the order messages sent	Interface Use	er ID (CompID)		
	Cor	if the missed message request in the informance Test Report	Order IDs			
		·	Client Order	IDs		
			CompID			

4.4 Post Trade Gateway Conformance

4.3.5 **T5 Post Trade Gateway – Single Sided Trade Reporting**

Test Case I	D: Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
T5-00	Post Trade Connect / Login (All Markets)	Y	Self-Conformance
Descr	ption:	-	
Establ	sh a connection, Logon and change your passw	ord.	
Comm	ent:		
If alrea	dy connected from Trading test sessions above,	please remain	logged in.
Activit	y Steps		
#	Test Step	Expected Re	esult
1.	Establish a connection and issue a Logon request message with new password to the Gateway	Successful L	ogon
2.	Successful login with new password accepted	Receive a su Response	iccessful Login
3.	Record the details of the Logon message sent in the Conformance Test Report	Interface Use	er ID (CompID)

Test Case	ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
T5-0	02	Post Trade – Single Sided Trade Reporting (All Markets)	Y	Self-Conformance
Descr	iptio	n:		
Submi	it a si	ingle sided Trade Report		
Comn	nent:			
You w report	vill al	ready be connected from the previous test	step. Submit a	a single sided trade
Activi	ty St	eps		
#	Tes	st Step	Expected Re	sult
1.	Sut	omit an Off Book single sided Trade Report	Trade Report submitted.	t successfully
	Receive a Trade Captur (TCR) Ack and Trade C Report (TCR).		ade Capture Report nd Trade Capture).	
2.	Rec	cord the details of the Trade Report in the	Interface User ID (CompID)	
	Cor	onformance Test Report	Trade Report ID	
			Trade ID	
Test Case	ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
T5-0	03	Post Trade – Single Sided Trade Reporting (All Markets)	Y	Self-Conformance
Descr Same	' iptio day	n: cancel of a single sided Off Book Trade Repo	ort	
Comn You w report	n ent: vill al capt	ready be connected from the previous test a ured on the same day.	step. Cancel a	a single sided trade
Activi	ty St	eps		
#	Tes	st Step	Expected Re	sult
1.	Submit an Off Book single sided Trade ReportTrade Report cancellationcancellation.successfully submitted.		t cancellation submitted.	
			Receive a Tra (TCR) Ack ar Report (TCR)	ade Capture Report nd Trade Capture).
2.	Rec	cord the details of the cancelled Trade	Interface Use	er ID (CompID)
	Rep	on in the Conformance Test Report.	Trade ID	
			Trade Report	t ID

Test Case	ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
T5-0	04	Post Trade – Single Sided Trade Reporting (Equity Market)	Y	Self-Conformance
Descr	iptio	n:		
Next d	day ca	ancel of a single sided published Off Book Tra	ade Report. (Le	C)
Comn	nent:			
You w trade i	vill alre report	eady be connected from the previous test ste t captured on the previous day.	p. Cancel a pu	blished single sided
Activity Steps				
		cps		
#	Tes	t Step	Expected Re	sult
#	Tes Sub Rep	t Step mit a next day Off Book single sided Trade port cancellation of a published reported	Expected Re Trade Report successfully	sult cancellation submitted.
# 1.	Tes Sub Rep trad	t Step omit a next day Off Book single sided Trade port cancellation of a published reported le.	Expected Re Trade Report successfully Receive a Tra (TCR) Ack ar Report (TCR)	sult cancellation submitted. ade Capture Report nd Trade Capture).
# 1. 2.	Tes Sub Rep trad	t Step omit a next day Off Book single sided Trade port cancellation of a published reported le.	Expected Re Trade Report successfully Receive a Tra (TCR) Ack ar Report (TCR) Interface Use	sult cancellation submitted. ade Capture Report nd Trade Capture). er ID (CompID)
# 1. 2.	Tes Sub Rep trad	t Step omit a next day Off Book single sided Trade port cancellation of a published reported e. cord the details of the cancelled Trade port in the Conformance Test Report.	Expected Re Trade Report successfully s Receive a Tra (TCR) Ack ar Report (TCR) Interface Use Trade ID	sult t cancellation submitted. ade Capture Report nd Trade Capture). er ID (CompID)

Test Case I	D:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
T5-0	05	Post Trade – Single Sided Trade Reporting (Equity Market)	Y	Self-Conformance
Descr	iptio	n:		
Next d	lay ca	ancel of a single sided non-published Off Boo	k Trade Repor	t. (NC)
Comm	nent:			
You w sided t	ill alr trade	eady be connected from the previous test stern report captured on the previous day.	ep. Cancel a n	on-published single
Activi	ty St	eps		
#	Tes	t Step	Expected Re	sult
1.	Sub Rep	omit a next day Off Book single sided Trade	Trade Report successfully	cancellation submitted.
	repo	orted trade.	Receive a Tra (TCR) Ack ar Report (TCR)	ade Capture Report nd Trade Capture).
2.	Rec	cord the details of the cancelled Trade	Interface User ID (CompID)	
	кер	Report in the Conformance Test Report.	Trade ID	
			Trade Report	: ID

Test Case I	D: Post Trade Gateway	Mandatory	Self-Conformance / Supported Test			
T5-00	Post Trade – Single Sided Trade Reports	N	Self-Conformance			
Descr	iption:					
Submi	t a delayed single-sided off book Block Trade (Eq	uity Market)				
Comm	nent:					
Ensure	Ensure that trade is only published post the delayed duration.					
Activi	Activity Steps					
#	Test Step	Expected Re	sult			
1.	Submit a delayed single-sided off book Block	Trade Captur	re Report messages			
	Irade	Receive a Tr (TCR) Ack ar Report (TCR	ade Capture Report nd Trade Capture).			

Test Case	ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test	
T5-0	07	Post Trade – Single Sided Trade Reports	N Self-Conformance		
Descr Submi (All Ma	Description: Submit a single-sided off book trade with commission type, commission fee fields (All Markets)				
Comn	nent:				
Activi	ity Ste	eps			
#	Test	t Step	Expected Re	sult	
1.	Sub com	mit a single-sided off book trade with mission type, and commission fee fields.	Successful submission.	trade report	
			TCR Ack (AF trade request for acceptand via the Post	R) for rejections of t; or TCR Ack (AR) ce of trade request Trade Gateway.	
			TCR (AE) for the buy side of the trade; and TCR (AE) for the sell side of the trade via the DSG Post Trade Gateway.		
			TCR (AE) for trade; and TC side of the tra Trade Gatew	the buy side of the CR (AE) for the sell ade via the Post ay	

4.3.6 **T6 Post Trade Gateway - Dual Sided Trade Reporting**

Test Case	ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
т6-0	01	Post Trade – Dual Sided Trade Reporting (All Markets)	Y	Self-Conformance
Descr	iptio	n:		
Submi	it a d	ual sided Trade Report.		
Comn	nent:			
You w	ill alre	eady be connected from the previous test step	o. Submit a dua	al sided trade report.
Activi	ty St	eps	1	
#	Tes	t Step	Expected Re	sult
1.	Sub	omit an Off Book dual sided Trade Report.	Trade Report submitted.	t successfully
	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.		Receive a Trade Capture Repor (TCR) Ack and Trade Capture Report (TCR).	
2.	Rec	cord the details of the Trade Report in the	Interface User ID (CompID)	
	CO	normance rest Report	Trade Report ID	
			Trade ID	
Test Case	ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test
T6-0	02	Post Trade – Dual Sided Trade Reporting (All Markets)	Y	Self-Conformance
Descr Same Comn	day	n: cancel of a dual sided Off Book Trade Report	: 	
You w captur	red or	eady be connected from the previous test step n the same day.	p. Cancel a du	al sided trade report
Activi	ty St	eps	1	
#	Tes	it Step	Expected Re	sult
1.	Sub can	omit an Off Book dual sided Trade Report cellation of a confirmed Trade.	Trade Report	t cancellation submitted.
	Ass inte cou able cou Rep	suming all clients developing trading rfaces will have 2 different FirmIDs i.e. nterparties to test with. Clients must be to accept/reject the trade as the nterparty to ensure a confirmed Trade port is cancelled.	nts developing trading ve 2 different FirmIDs i.e. test with. Clients must be ect the trade as the nsure a confirmed Trade ed.	
2.	Rec Rep	cord the details of the cancelled Trade port in the Conformance Test Report.	Interface Use Trade ID Trade Report	er ID (CompID) t ID
L	1		1	

Test Case I	D: Post Trade Gateway	Mandatory	Self-Conformance / Supported Test			
т6-00	Post Trade – Dual Sided Trade Reporting (Equity Market)	Y	Self-Conformance			
Descr	Description:					
Next d	ay cancel of a dual sided published Off Book Tra	ade Report. (LC)			
Comm You w trade r	ent: Il already be connected from the previous test s eport captured on the previous day.	tep. Cancel a p	oublished dual sided			
Activit	y Steps					
#	Test Step	Expected Re	sult			
1.	Submit a next day Off Book dual sided Trade Report cancellation of a published reported	Trade Report cancellation successfully submitted.				
	liaue.	Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).				
2.	Record the details of the cancelled Trade	Interface Use	er ID (CompID)			
	Report in the Conformance Test Report.	Trade ID	Trade ID			
		Trade Repor	t ID			

Test Case I	ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test	
T6-0	04	Post Trade – Dual Sided Trade Reporting (Equity Market)	Y	Self-Conformance	
Description:					
Next d	lay ca	ancel of a dual sided non-published Off Book	Trade Report.	(NC)	
Comm	nent:				
You w sided t	rill alı trade	ready be connected from the previous test s report captured on the previous day.	tep. Cancel a	non-published dual	
Activi	ty St	eps			
#	Tes	st Step	Expected Re	sult	
1.	Sub Rep	omit a next day Off Book dual sided Trade	Trade Report	t cancellation submitted.	
	rep	orted trade.	Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).		
2.	Rec	cord the details of the cancelled Trade	Interface Use	er ID (CompID)	
Re		bort in the Conformance Test Report.	Trade ID		
			Trade Report	ID	

Test Case I	D: Post Trade Gateway	Mandatory	Self-Conformance / Supported Test		
т6-0	Post Trade – Dual Sided Trade Reporting (Equity Market)	N	Self-Conformance		
Descr	iption:		-		
Submi	t a delayed dual-sided off book Block Trade				
Comm	nent:				
Ensure	Ensure that trade is only published post the delayed duration.				
Activi	Activity Steps				
#	Test Step	Expected Re	sult		
1.	Submit a delayed dual-sided off book Block Trade	Trade Capture Report messages			
		Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).			

Test Case I	ID:	Post Trade Gateway	Mandatory Self-Conformance / Supported Test		
т6-0	06	Post Trade – Dual Sided Trade Reporting (All Markets)	N Self-Conformance		
Description:					
Submi	it a d	ual-sided off book trade with commission type	e, commission	fee fields	
Comm	nent:				
Activi	ty St	eps			
#	Tes	t Step	Expected Re	sult	
1.	Sub con	omit a dual-sided off book trade with mission type, and commission fee fields.	 Successful trade report submission Receive a TCR Ack (AR) notification of Request acceptance to initiating party; and TCR (AE) system notification of trade report to counter party. A TCR (AE) acceptance of the dual-sided off book trade is sent via the Post Trade Gateway and A TCR (AR) acknowledgement is sent via the Post Trade Gateway. 		
			A TCR (AE) the initiating Post Trade G	will be sent to both and contra side via Gateway.	

4.3.7 T7 Post Trade Gateway – Post Contra Trade (PC)

Test Case I	ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test			
T7-0	01	Post Trade – Trade Reporting (Equity Market)	Y	Self-Conformance			
Descr	Description:						
Correc	ction	of a previous day On Book Trade. (PC)					
Comm	nent:						
You w execut	vill alı ted o	ready be connected from the previous test n the previous day.	step. Cancel	an On Book trade			
Activit	ty St	eps					
#	Tes	t Step	Expected Result				
1.	Sub	omit a Post Contra Trade Report.	Trade Report cancellation successfully submitted.				
			Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).				
2.	Rec	cord the details of the Post Contra Trade	Interface Use	er ID (CompID)			
	Rep	bort in the Conformance Test Report.	Trade ID				
			Trade Report ID				
			OrigTradeID				
			OrigTradeDa	te			

Test Case I	D: Post Trade Gateway	Mandatory	Self-Conformance / Supported Test			
T7-00	Post Trade – Trade Cancellation (All Markets)	Y	Self-Conformance			
Descri	Description:					
Cance	lation of a same day On Book Trade.					
Comm	ent:					
You w execut	II already be connected from the previous test ed on the same day.	step. Cancel	an On Book trade			
Activit	Activity Steps					
#	Test Step Expected Result					
1.	Submit a Trade Capture Report to cancel a same day On Book trade.	cel a Trade Report cancellation successfully submitted.				
	Receive a Trade Capture Repo (TCR) Ack and Trade Capture Report (TCR).					
2.	Record the details of the same day On Book	Interface Use	er ID (CompID)			
	Conformance Test Report.	Trade ID				
	·	Trade Repor	t ID			
		OrigTradeID				
		OrigTradeDa	ite			

4.3.8 T8 Post Trade - Own Trades Book Download (OTBD)

Test Case I	ID:	Post Trade Gateway	Mandatory	Self-Conformance / Supported Test		
T8-00	01	Post Trade – OTBD (All Markets)	Y	Self-Conformance		
Descr	Description:					
Submi	t Ow	n Trades Book Download Request.				
Comm	nent:					
You w	ill alr	eady be connected from the previous test ste	p.			
Activi	ty St	eps				
#	Tes	it Step	Expected Re	sult		
1.	Sub	omit 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 Interface User ID (CompID)			er ID (CompID)		
Re		quest in the Conformance Test Report.	Trade ID			
			Trade Reque	st ID		

4.5 T9 Drop Copy Gateway

Test Case	D: Drop Copy Gateway	Mandato	ory Self-Conformance / Supported Test			
T9-0	Drop Copy Connect / Login (All Mar	(ets) Y	Self-Conformance			
Descr	Description:					
Establ	sh a connection, Logon and change your	bassword.				
Comn	ient:					
If alrea	dy connected from Trading test sessions	above, please rer	main logged in.			
Activi	y Steps					
#	Test Step	Expecte	d Result			
1.	Establish a connection and issue a Logor request message with new password to t Gateway	he Success	Successful Logon			
2.	Successful login with new password acce	epted Receive Respons	a successful Login se			
3.	Record the details of the Logon message in the Conformance Test Report	sent Interface	Interface User ID (CompID)			

Test Case I	D: Drop Copy Gateway	Mandatory	Self Conformance / Supported Test			
T9-00	Drop Copy – OOBD (All Markets)	Y	Self Conformance			
Descri	Description:					
Submit	Own Order Book Download (OOBD) Request.					
Comm	ent:					
You wi	II already be connected from the previous test st	ep.				
Activit	y 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	ils of the Mass Order Status Interface User ID (CompID)				
	Request in the Conformance Test Report.	Mass Status Req ID				
		Trader Grou	o			
		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 ID:	Case	Trading Gateways	Mandatory	Self-Conformance / Supported Test
T10 -	-001	Trading On Behalf Of (OBO) Actions (All Markets)	Y	Supported Test
Descr	iption			
Establ confirr	lish a ns rece	connection and Logon. CTA to action O eipt of unsolicited messages.	BO Order Ca	ncel activity. Client
Comn	nent:			
If alrea	ady co	nnected from Trading test sessions above,	please remain	logged in.
Call C	ustom	er Support to book time for executing this te	st with a CTA.	
Activi	ty Ste	ps		
#	Test	Step	Expected Result	
1.	lf req Logo	uired, establish a connection and issue a n request message.	Successful Logon	
2.	Clien	t to submit an Order.	Order successfully submitted and remains on the order book.	
	Assu order	ming there is no match for the order in the book.	Receive Execution Report.	
			Provide the C Order ID to C	Drder ID and Client
3.	Requ	lest Customer Test Analyst (CTA) to	Order is successfully cancelled.	
	cance	el the order.	Receive Execution Report with Execution Type (4)	
4.	Reco	rd the details of the order message sent	Interface Use	er ID (CompID)
	in the	Conformance Test Report	Order ID	
			Client Order	ID

Test ID:	Case	Trading Gateways	Mandatory	Self-Conformance / Supported Test	
T10 -	002	Trading On Behalf Of (OBO) Actions (All Markets)	Y Supported Test		
Descr	iption				
CTA to	o actio	n OBO Trade Cancel activity. Client confirm	is receipt of un	solicited messages.	
Comn	nent:				
Client	alread	y connected from Trading test sessions abo	ove, please ren	nain logged in.	
Call C	ustome	er Support to book time for executing this te	st with a CTA.		
Activi	ty Ste	os			
#	Test	Step	Expected Re	sult	
1.	Clien	t to generate an On Book Trade.	Order successfully submitted and executes.		
	Assu subm	ming there is a match for the order itted, otherwise please generate one.	Receive Execution Reports.		
			Provide the Trade ID, Order ID and Client Order ID to the CTA		
2.	Requ	est Customer Test Analyst (CTA) to	Trade is succ	cessfully cancelled.	
	cance	ei the On Book Trade.	Receive Execution Reports to cancel the Trade and reinstate the order		
3.	Reco	rd the details of the trade/order message	Interface User ID (CompID)		
	sent	in the Conformance Test Report	Execution ID and Order re	of Trade Cancel instatement	
			Trade ID		
			Order ID		
	Client Order ID		ID		

				-
Test ID:	Case	Post Trade Gateways	Mandatory	Self-Conformance / Supported Test
T10 -	-003	Trading On Behalf Of (OBO) Actions (All Markets)	Y	Supported Test
Descr	iption	:		
CTA to action OBO single sided Trade activity. Client confirms receipt of unsolicited messages.				
Comn	nent:			
Client	alread	y connected from Trading test sessions abo	ove, please ren	nain logged in.
Call C	ustome	er Support to book time for executing this te	st with a CTA.	
Activi	ty Ste	ps		
#	Test	Step	Expected Re	sult
1.	Requ	est Customer Test Analyst (CTA) to	Trade is succ	essfully captured.
	subm the cl	iit an Off Book trade report On Behalf Of lient.	Receive TCRs of the captured Trade Report.	
2.	Reco	rd the details of the trade sent in the	Interface Use	er ID (CompID)
	Confe	ormance Test Report	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 alrea	dy connected from Trading test sessions abo	ove, please ren	nain logged in.		
Call Customer Support to book time for executing this test with a CTA.					
Activity St	eps				
# Tes	t Step	Expected Re	sult		
1. CT/	A publishes a unique message to the client.	News messa submitted.	ge successfully		
No	actions required by the client	Receive New	vs message.		
		Provide the T and Client Or	rade ID, Order ID der ID to the CTA		
2. Rec	ord the details of the News message sent	Interface Use	er ID (CompID)		
in th	ne Conformance Test Report	Unique text n	nessage received		
		Instrument ID)		

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

Test Case I	D: 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	
Descr	ption:			
Successfully submit a Cross Order on the FIX or Native or FIX Trading Gateways				
Comm	Comment:			
In orde	er for the Cross Order to be successfully submitte	d, TIF must be	DAY	
Activi	y Steps			
#	Test Step	Expected Re	sult	
1.	Enter a Cross Order during continuous trading	The order ex	ecutes immediately.	
		Receive an E	Execution Report.	
2.	Record the details of the order message sent	Interface User ID (CompID)		
	and the Execution Report in the Conformance	Security ID		
		Trader mnem	nonic	
		ExecutionID		

Test Case ID	Trading – Cross Orders (Drop Copy)	Mandatory	Self- Conformance / Supported Test
T11- 002	Drop Copy Gateway (Equity Market)	Y	Self- Conformance
Descrip	tion:		
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			
# 1	Test Step	Expected Re	sult
1. L	og onto Drop Copy gateway		
F	Request to view all open orders	Receive an E	xecution
		Report.report	received
2. F ii	Record the details of the execution report ndicating no open orders	No open orders for specified instrument	
		Interface Use	er ID (CompID)

Test Case	D: Trading – Cross Orders	Mandatory	Self-Conformance / Supported Test		
T11- 003	Post Trade Gateway (Equity Market)	Y	Self-Conformance		
Descr	iption:				
From t succes	From the previous test case of successfully submitting a Cross Order, confirm the order is successful on the Post Trade Gateway				
Activi	ty Steps				
#	Test Step	Expected Result			
1.	Record the details of the Trade Capture Report	Interface Use	er ID (CompID)		
	of the successful Cross Order	SecurityID			
		Trade ID			

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

Test Case	D: Trading – Pegged Orders		Mandatory	Self- Conformance / Supported Test	
T12- 001	FIX or Native Gateway Gate Market)	ways <mark>(Equity</mark>	Y Self- Conformance		
Description:					
Successfully submit a Pegged Order on the FIX or Native or FIX Trading Gateways					
Comn	Comment:				
In order for the Pegged Order to be successfully submitted, MES is mandatory.			andatory.		
Activi	y Steps				
#	Test Step		Expected Result		
1.	Enter a Pegged Order during any or trading sessions:	of the below	The order is successfully submitted		
	continuous trading		Receive an E	Execution Report.	
	 opening auction 				
	 volatility action call 				
	 intra-day auction call 				
	• FCO				
2.	Record the details of the order me	ssage sent	Interface Use	er ID (CompID)	
	and the Execution Report in the Co	onformance	Trader mnem	nonic	
			Order ID		
			ClientOrderI)	
			Instrument ID)	

Test Case II	D: Trading – Pegged Orders	Mandatory	Self- Conformance / Supported Test		
T12- 002	Drop Copy Gateway (Equity Market)	Y	Self- Conformance		
Descrip	ption:				
From t exist sp	From the previous test case, log onto the Drop Copy Gateway and confirm open orders exist specific to the Pegged Order submitted				
Comm	ent:				
Logon	to the Drop Copy Gateway and request to view a	ll open orders			
Activit	y Steps				
#	Test Step	Expected Re	sult		
1.	Log onto Drop Copy Gateway	Logon succe	ssful		
	Request to view all open orders for the relevant instrument	Receive an Execution Report with open orders for relevant instrument.			
	Pecord the details of the Execution Peport in	InstrumentID			
2.	the Conformance Test Report	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				
Activi	ity Ste	eps		
#	Test	t Step	Expected Re	sult
1.	Subi Peg	mit an order that executes against the ged Order	Order successfully execute	
2.	Rec	ord details of Trade Capture Report	Interface User ID (CompID)	
			SecurityID	
			ClientOrderI)
			TradeID	

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

Test Case I	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	
Descr	iptio	n:		
Succe	Successfully submit a Pegged Limit Order on the FIX or Native & FIX Trading Gateways			Frading Gateways
Comr	nent:	the Denned limit and a to be accessed the suit		
In orde	In order for the Pegged limit order to be successfully submitted, MES is mandatory.			s mandatory.
Activi	ty St	eps		
#	Tes	t Step	Expected Result	
1.	Ent belo	er a Pegged limit order during any of the w trading sessions:	The order is successfully submitted	
		continuous trading	Receive an E	Execution Report.
		opening auction		
		 volatility action call 		
		 intra-day auction call 		
		• FCO		
2.	Rec	ord the details of the order message sent	Interface Use	er ID (CompID)
	and Tes	the Execution Report in the Conformance	SecurityID	
			OrderID	
			ClientOrderI)

Test Case I	D: 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				
Activi	y Steps			
#	Test Step	Expected Result		
1.	Log onto Drop Copy gateway	The order executes immediately		
	Request to view all open orders	Receive an Execution Report with no Open orders for instrument.		
		Interface Use	er ID (CompID)	
2.	and the Execution Report in the Conformance	InstrumentID		
	Test Report	SecurityID		

Test Case I	D: Trading – Pegged Limit Orders	Mandatory	Self- Conformance / Supported Test
T13- 003	Post Trade Gateway (Equity Market)	Y	Self- Conformance
Descri	ption:		
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			
Activit	y Steps		
#	Test Step	Expected Re	sult
1.	Find successfully executed Pegged limit order matching with:	Receive an Execution report	
		Interface Use	er ID (CompID)
2	Record the details of the order message sent	ClientOrderI)
2.	and the Trade Capture Report in the Conformance Test Report	SecurityID	

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

			Solf	
Test Case	ID: (FIX or Native, Drop Copy, Post Trade)	Mandatory	Conformance / Supported Test	
T14- 001	FIX or Native Gateways (Equity Market)	Y Self- Conformance		
Descr	iption:			
Successfully submit a Good for EOD Volume Auction Uncross (GDX) order onto the Native & FIX Trading Gateways				
Comn	nent:			
Remain logged onto the FIX or Native Trading Gateways				
Activi	ty Steps			
#	Test Step	Expected Result		
1.	Enter a Good for Volume Auction uncross (GDX) TIF order during any of the below trading sessions:	The order is successfully submitted		
	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			
2.	CPX session Record the details of the Execution Report in	Interface Use	er ID (CompID)	
2.	CPX session Record the details of the Execution Report in the Conformance Test Report	Interface Use ClientOrderI	er ID (CompID) D	
2.	CPX session Record the details of the Execution Report in the Conformance Test Report	Interface Use ClientOrderII Instrument IE	er ID (CompID) D	
2.	CPX session Record the details of the Execution Report in the Conformance Test Report	Interface Use ClientOrderII Instrument IE ExecutionID	er ID (CompID) D	

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 S	Steps			
# Te	est Step	Expected Re	sult	
# Te 1. In R ⁱ	est Step recovery mode on Drop Copy gateway equest to view all open orders	Expected Re The order is executed Receive an E	sult successfully Execution Report	
# Te	est Step recovery mode on Drop Copy gateway equest to view all open orders	Expected Re The order is executed Receive an E with Open or	sult successfully Execution Report ders for instrument	
# Te	est Step recovery mode on Drop Copy gateway equest to view all open orders	Expected Re The order is executed Receive an E with Open or Interface Use	sult successfully Execution Report ders for instrument er ID (CompID)	
# Te 1. In Re 2. Re ar	est Step recovery mode on Drop Copy gateway equest to view all open orders ecord the details of the order message sent nd the Execution Report in the Conformance	Expected Re The order is executed Receive an E with Open or Interface Use ClientOrderIE	sult successfully Execution Report ders for instrument er ID (CompID)	
# Te 1. In Re 2. Re ar Te	est Step recovery mode on Drop Copy gateway equest to view all open orders ecord the details of the order message sent and the Execution Report in the Conformance est Report	Expected Re The order is a executed Receive an E with Open or Interface Use ClientOrderIE InstrumentID	sult successfully Execution Report ders for instrument er ID (CompID)	

Test Case IE	D: 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				
#	Test Sten	Expected Re	eult	
π	Test Step		Suit	
1.	Record the details of the order message sent and the Execution Report in the Conformance	Receive an E Match on:	xecution Report	
	Test Report	Interface User ID (CompID)		
		ClientOrderID		
		Instrument ID)	
		ExecutionID		

4.8 T15 Trading – Quotes

Test Case I	D: Trading – Quotes	Mandatory	Self-Conformance / Supported Test	
T15- 001	Native Enhanced Gateway (Derivatives Markets)	Y	Self-Conformance	
Descri	ption:	·		
Succes	sfully submit a dual-sided quote			
Comm	ent:			
Logon	to Native Enhanced Gateway and submit a dual	-sided quote		
Activit	y Steps			
#	Test Step	Expected Re	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	Receive an Execution Reports Match on:		
	Test Report	Interface Use	er ID (CompID)	
		ClientOrderI)	
		Instrument IE)	
		ExecutionID		

4.9 T16 Trading – User Created Instruments

Test Case	D: Future	Mandatory	Self-Conformance / Supported Test
T16- 001	Native Enhanced Gateway (Derivatives Markets)	Y	Self-Conformance
Descr	iption:		•
Client type.	submits a request to create an instrument under	the "Any day i	futures" strategy
Comn	nent:		
Submit a request to create an Anyday Future instrument through the Native Enhanced Gateway.			
Activi	ty Steps		
#	Test Step	Expected Re	sult
1.	Submit a request a Security Definition Request message	Receive a Se message bac	ecurity Definition k
2.	Record the details of the Security Definition Request message sent and the Security	Interface Use	er ID (CompID)
	Definition message in the Conformance Test	Security Req	uest ID
	Report	Security Type	e
		Security ID	
1			

Test Case I	D: 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.				
Comm Submit	ent: a request to create a Call Option through the Na	ative Enhanced	Gateway.	
Activit	y Steps			
#	Test Step	Expected Re	sult	
1.	Submit a request a Security Definition Request message	Receive a Se message bac	eurity Definition	
2.	Record the details of the Security Definition Request message sent and the Security	Interface Use	er ID (CompID)	
	Definition message in the Conformance Test			
	Report	Security Type	9	
		Security ID		

Test Case I	D: 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.				
Comm	ent:			
Submi	a request to create a Put Option through the Na	tive Enhanced	Gateway.	
Activit	y Steps			
#	Test Step	Expected Re	sult	
1.	Submit a request a Security Definition Request message	Receive a Se message bac	ecurity Definition	
2.	Record the details of the Security Definition	Interface Use	er ID (CompID)	
2.	Record the details of the Security Definition Request message sent and the Security Definition message in the Conformance Test	Interface Use Security Req	er ID (CompID) uest ID	
2.	Record the details of the Security Definition Request message sent and the Security Definition message in the Conformance Test Report	Interface Use Security Req Security Type	er ID (CompID) uest ID e	
2.	Record the details of the Security Definition Request message sent and the Security Definition message in the Conformance Test Report	Interface Use Security Req Security Type Security ID	er ID (CompID) uest ID e	

Test Case I	D: Naked Options	Mandatory	Self-Conformance / Supported Test
T16- 005	Native Enhanced Gateway (Derivatives Markets)	Y	Self-Conformance
Descri	iption:		
Client	submits a request to create an instrument unde	the "Naked Op	tions" strategy type.
Comm	nent:		
Submi	t a request to create a Naked Option through the	Native Enhanc	ed Gateway.
Activit	ty Steps		
	T (0)		
#	Test Step	Expected Re	sult
#	Submit a request a Security Definition Request message	Expected Re Receive a Se message bac	sult ecurity Definition ck
# 1. 2.	Submit a request a Security Definition Request message Record the details of the Security Definition	Expected Re Receive a Se message bac	sult ecurity Definition ck er ID (CompID)
# 1. 2.	Test Step Submit a request a Security Definition Request message Record the details of the Security Definition Request message sent and the Security Definition message in the Conformance Test	Expected Re Receive a Se message bac Interface Use Security Req	sult ecurity Definition ck er ID (CompID) uest ID
# 1. 2.	Submit a request a Security Definition Request message Record the details of the Security Definition Request message sent and the Security Definition message in the Conformance Test Report	Expected Re Receive a Se message bac Interface Use Security Req Security Type	sult ecurity Definition ck er ID (CompID) uest ID e
# 1. 2.	Test Step Submit a request a Security Definition Request message Record the details of the Security Definition Request message sent and the Security Definition message in the Conformance Test Report	Expected Re Receive a Se message bac Interface Use Security Req Security Type Security ID	sult ecurity Definition ck er ID (CompID) uest ID e

Test Case ID	Trading – User Created Instrument – Instrument ID	Mandatory	Self-Conformance / Supported Test	
T16- 006	Native Enhanced Gateway (Derivatives Markets)	Y	Self-Conformance	
Description:				
Client s	ubmits a request to create an instrument using I	Instrument ID.		
Comme	ent:			
Submit Native the Sym	Submit a request to create user-created instruments using the Instrument ID through the Native Enhanced Gateway. Field will indicate whether the Reference Instrument field is the Symbol or the Instrument ID.			
Activity	/ Steps			
#	Test Step	Expected Re	sult	
1.	Submit a Security Definition Request message	Receive a Se message bac	ecurity Definition k	
2.	Record the details of the Security Definition	Interface Use	er ID (CompID)	
	Request message sent and the Security Definition message received in the	Security Req	uest ID	
	Conformance Test Report	Security Type	e	
		Reference In Reference In	strument Identifier strument	

4.10 T17 Trading – On-Book Strategies

Test Case I	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 day fut	executes an on-book trade against their "User Cr ures" strategy type	eated Instrum	ent" under the "Any	
Comm	ent:			
Remai	n logged in from previous step. The test needs to b	pe executed du	ring the Continuous	
Trading	j session.			
Activit	y Steps			
#	Test Step	Expected Re	sult	
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.		
2	Pacard the datails of the Order cont and			
Ζ.	Execution Report message in the		in (Compin)	
	Conformance Test Report	Client Order	ID	
		Security ID		
		Security Type	Э	
		Execution ID		

Test Case I	D: 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
Descri Client Delta (ption: executes an on-book trade against their "User Cr Options" strategy type	eated Instrum	ent" under the "Call
Remai Trading	enτ: n logged in from previous step. The test needs to b g session.	be executed du	ring the Continuous
Activit	y 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 E	Execution Report
2.	Record the details of the Order sent and	Interface Use	er ID (CompID)
2.	Record the details of the Order sent and Execution Report message in the Conformance Test Report	Interface Use Client Order	er ID (CompID) ID
2.	Record the details of the Order sent and Execution Report message in the Conformance Test Report	Interface Use Client Order Security ID	er ID (CompID) ID
2.	Record the details of the Order sent and Execution Report message in the Conformance Test Report	Interface Use Client Order Security ID Security Type	er ID (CompID) ID
2.	Record the details of the Order sent and Execution Report message in the Conformance Test Report	Interface Use Client Order Security ID Security Type Execution ID	er ID (CompID) ID e

Test Case II	D: 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
Descri Client Delta C	ption: executes an on-book trade against their "User Cr Options" strategy type	eated Instrum	ent" under the "Put
Comm Remain Trading	enτ: n logged in from previous step. The test needs to t g session.	be executed du	ring the Continuous
Activit	y Steps		
#	Test Step	Expected Re	sult
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 E	execution Report
2.	Record the details of the Order sent and	Interface Lise	
		intenace Use	i id (Compid)
	Execution Report message in the Conformance Test Report	Client Order	ID
	Execution Report message in the Conformance Test Report	Client Order Security ID	iD
	Execution Report message in the Conformance Test Report	Client Order Security ID Security Type	iD iD
	Execution Report message in the Conformance Test Report	Client Order Security ID Security Type Execution ID	iD ID

Test Case I	D: 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						
Remai Tradin	i ent: n logged in from previous step. The test needs to g session.	be executed du	uring the Continuous			
Activi	y Steps					
#	Test Step	Expected Re	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	Interface User ID (CompID)				
	Execution Report message in the Conformance Test Report	Client Order ID				
		Security ID	Security ID			
		Security Typ	е			
		Execution ID				

4.11 T18 Trading – Off-Book Strategies

Test Case ID	Trading – Off-Book Strategies –D: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					
Comme You will report.	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					
1					
#	Test Step	Expected Re	sult		
# 1.	Test Step Submit an Off Book single/dual sided Trade Report	Expected Re The Report s submitted. Receive a Tr (TCR) Ack ar Report (TCR)	sult uccessfully ade Capture Report nd Trade Capture).		

Test Case I	D: 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		
Descr i Client strateg	Description: Client performs a single/dual sided OFF BOOK trade under the Inverse Calendar Spread strategy type				
Comm You wi report.	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.				
Activit	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	Interface User ID (CompID)			
	Conformance Test Report	Trade Report ID			
		Trade ID			

Test Case	D: 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		
Descr Perfor	Description: Perform a single sided Off Book strategy trade type				
Comn	nent:				
Stay c	onnected from the previous test step. Submit a sin	gle sided strate	gy type trade report.		
Activi	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	Interface User ID (CompID) Trade Report ID Trade ID			
	Conformance Test Report				

Test Case I	Trading – Off-Book Strategies – D: Single/Dual sided trade - "FwdFwd"	Mandatory	Self-Conformance / Supported Test		
T18- 004	FIX Post Trade Gateways (Derivatives Markets)	Y	Self-Conformance		
Descr	ption:				
Client	performs a single/dual sided Off Book trade aga	inst their "Use	r Created		
Instru	nent", created under the FwdFwd strategy type				
Comm	ient:				
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.					
Activi	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	Interface Use	er ID (CompID)		
	Conformance Test Report	Trade Report ID			
		Trade ID			

Case ID: Trade	datory Self-Conformance / Supported Test		
T18- 005FIX 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. Pe	rform roll trade strategy type		
trade report.			
Activity Steps			
# Test Step Exp	Expected Result		
Submit an Off Book Roll Trade (RT) strategy The submit and trade type Trade Report	The Report successfully submitted.		
Rec (TC Rep	Receive a Trade Capture Report (TCR) Ack and Trade Capture Report (TCR).		
2. Record the details of the Trade Report in the Inte	Interface User ID (CompID)		
Conformance Test Report	le Report ID		
	-		

4.12 T19 Trading – Inverse Calendar Spreads

Test Case	Trading – On-Book Strategies – Imp D: Orders	ied Mand	atory	Self-Conformance / Supported Test		
T19- 001	Native Enhanced Gateway (Deriv Markets)	atives	Y Self-Conformance			
Descr	Description:					
Execu	e a trade on an inverse calendar spread ir	strument				
Comn	ent:					
Stay of instrum	onnected from the previous test step. E nent.	xecute a trad	le on a	in inverse calendar		
Activi	y Steps					
#	Test Step	Expec	Expected Result			
1.	Enter an Order for an inverse calendar instrument	The o submi order	The order is successfully submitted and resides on the order book.			
		Recei	Receive an Execution Report			
2.	Record the details of the Order sent	Interfa	Interface User ID (CompID)			
		Client	Client Order ID			
		Secur	Security ID			
		Secur	Security Type			
3.	Enter an Order that matches the order submitted in step 1	The C submi the or	The Order is successfully submitted and executes against the order from step 1.			
4.	Record the details of the Execution Report the Conformance Test Report	ts in Interfa	Interface User ID (CompID) Execution IDs			

4.16 T20 Trading – Iceberg Order (Native or FIX)

Test Case I	D: Trading – Iceberg Order (FIX or Native)	Mandatory	Self- Conformance / Supported Test		
T 20 0	FIX or Native Gateway	V	Self-		
120-0	(Equity Market)	ř	Conformance		
Descri	ption:				
Succes	ssfully submit an Iceberg Order on the FIX or Nati	ve Trading Ga	teways		
Comm	ent:				
In orde manda	er for the Iceberg Order to be successfully subm tory.	nitted, the visit	ble and total size is		
Activit	y Steps				
#	Test Step	Expected Result			
1.	Enter an Iceberg Order during continuous trading	The order is successfully submitted and resides on the			
			Receive an Execution Report.		
2.	Record the details of the order message sent	Client Order ID			
	and the Execution Report in the Conformance Test Report.	Execution Type			
		Order Status			
		DisplayQty			
		Interface Licer ID (CompID)			
	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	
Descr	iptio	n:			
Trade	agai	nst an Iceberg Order			
Remain require Contin	in log ed va nuous	gged in from the previous step. Ensure tha lidations, based on the previous test. The tes Trading session.	at the Iceberg at needs to be	Order has met the executed during the	
Activi	ty St	eps			
#	Tes	t Step	Expected Re	sult	
1.	Sub and orde Ass orde	omit an Order to trade against the visible I hidden portion of the passive Iceberg er. sume there is a match for this order in the er 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.	Rec	cord the details of the order message sent	nt Interface User ID (Comp		
	and	the Execution Report in the Conformance	Order ID		
			Client Order	ID	
			Public Order	ID	
			Execution Ty	ре	
			Order Status		
3.	Rec	cord the details of the order message sent	Interface User ID (CompID)		
	and Tes	the Execution Report in the Conformance at Report for an Order that was partially	Order ID		
	fille	d.	Client Order	ID	
			Public Order	ID	
			Execution Type		
			Order Status		
4.	Loc MIT Ord	ate the replenished Iceberg Order on the CH Market Data Gateway and record the ler ID in the Conformance Test Report.	Order ID		

Test Case	ID:	Gateway Description	Mandatory	Self-Conformance / Supported Test	
T20- 003		Native Basic Trading Gateway – Icebergs (Equity Markets)	Ν	Self-Conformance	
Descr	riptio	n:	iona far an ha	ok trodoc on Equity	
instrur	nent	s			
Comn	nent:				
From	T1-00	02 logon has been established (Login with ve	rsion 2)		
Activi	ty St	eps			
#	Tes	st Step	Expected Result		
1.	Log	on to Drop Copy and Post Trade Gateway	Logon successful		
1.	Sub	omit an Iceberg order	Iceberg orde	rsubmitted	
2.	Exe bot	ecute against the resting iceberg order for h the visible and hidden quantities	Trade executed successfully		
3.	Rec in th	cord the details of the trade messages sent ne Conformance Test Report	Receive Execution report on FIX Trading Gateway; Native Trading Gateway; Drop Copy Gateway;		
			Receive Trade Capture Report on Post Trade Gateway		
			Logoff succe	ssfully	

4.17 T21 Trading – Liquidity Indicator (Native or FIX)

Test Case ID:	Trading – Liquidity Indicator (FIX or Native, FIX Drop Copy)	Mandatory	Self- Conformance / Supported Test
T21 - 001	FIX or Native Gateway (Equity Market)	Y	Self- Conformance

Description:

Successfully submit an order, as a result of a client providing liquidity or taking liquidity on the FIX or Native Trading Gateways

Comment:

Indicator to identify whether the order fill or partial fill was the liquidity provider or taker to an execution. Required if Order Status is Partially Filled or Filled and Execution Type is Trade. The test needs to be executed during Continuous Trading session.

Activity Steps

/					
#	Test Step	Expected Result			
1.	Enter an order during continuous trading resulting in an order status of partially filled or filled and execution type of trade	Receive an Execution Report.			
2. Record the details of the ord and the Execution Report re Conformance Test Report.	Record the details of the order message sent	Client Order ID			
	Conformance Test Report.	Execution Type			
		Order Status			
		Interface User ID (CompID)			
		Liquidity Indicator			

4.18 T22 Trading – Working Indicator (Native)

Test Case II	D: Trading – Working Indicator (Native)	Mandatory	Self- Conformance / Supported Test			
T22 - 0	01 Native Gateway (Equity Market)	Y	Self- Conformance			
Descri Succes on Nat	Description: Successfully submit a new order to identify if the order is currently being worked on Native Trading Gateway					
Comm Indicate Order S	ent: or to identify whether the order is currently beir Status is New.	ng worked. Or	nly applicable when			
Activit	y Steps					
#	Test Step	Expected Result				
1.	Enter an order during continuous trading	Check presence of field				
	where the order status is new.	Receive an Execution Report.				
2.	Record the details of the order message sent	Client Order ID				
	and the Execution Report in the Conformance	Execution Type				
		Order Status				
		Interface User ID (CompID)				
		Working Indi	cator			

4.19 T23 Trading – Real Time Circuit Breaker Alerts to Brokers (Drop Copy)

Test Case	Trading – Real Time Circu D: to Brokers (Drop Copy)	iit Breaker Alerts	Mandatory	Self- Conformance / Supported Test
T23- 001	Drop Copy Gateway <mark>(Equ</mark>	ty Market)	N	Self- Conformance
Descr	ption:			
Trigge	r alert sent to Drop Copy user w	hen trader breach	es a circuit bre	eaker
Comn	ent:			
Receiv	e alerts also for any missed circ	uit breaker upon I	ogin	
Activi	y Steps			
#	Test Step Expected Result		sult	
1.	Log onto Drop Copy Gateway		Logon successful	
2.	Enter an order that triggers a c	rcuit breaker	Circuit breaker triggered and 'News' message received	
			Text	
	Record the details of the News message received in the Conformance Test Report	message	SecurityID	
3.		NoRoutingID	S	
			RoutingType	
			RoutingID	

4.20 T24 Trading – FX Auction Automation

NOTE: This section must be actioned only on the Native Heavy Trading interfaces where applicable. This functionality is only applicable to firms that are listed as Banks.

Test Case I	D: Gateway description	Mandatory	Self-Conformance / Supported Test	
T24- 001	Native Heavy Trading Gateway – FX Auction Automation (Currency Market Instruments)	N	Self-Conformance	
Descr	iption:			
Submi	t an order to the FX Auction order book			
Comm	nent:			
This w FX Au	ill only be allowed if the firm is listed as a Bank. I ction Order book attached.	ldentify an inst	rument that has the	
Activi	ty Steps			
#	# Test Step Expected Result			
1.	Logon to Native Heavy Gateway	Logon successful.		
2.	Submit an order to the FX auction	Order received		
3.	Record the details of the trade messages sent in the Conformance Test Report	Receive Execution reports on the Native Heavy Gateway; Drop Copy gateway.		

Test Case	D: Gateway description	Mandatory	Self-Conformance / Supported Test	
T24- 002	FX Auction Automation (Currency Market Instruments)	N	Self-Conformance	
Descr	iption:		•	
Ability	to amend an existing order in the FX Auction			
Comn	nent:			
From allowe book a	T24-001 an order already exists in the FX Aud d if the firm is listed as a Bank. Identify an instru uttached.	tion order boo nent that has th	k. This will only be he FX Auction Order	
Activi	ty Steps			
#	Test Step	Expected Re	sult	
1.	Logon to Native Heavy Gateway	Logon successful.		
2.	Submit an order to the FX auction	Order received		
3.	Amend order	Order amended successfully		
4.	Record the details of the trade messages sent in the Conformance Test Report	Receive Execution reports on the Native Heavy Gateway; Drop Copy gateway.		

Test Case I	D: Gateway description	Mandatory	Self-Conformance / Supported Test
T24- 003	FX Auction Automation (Currency Market Instruments)	Ν	Self-Conformance
Descr	ption:		
Ability	to cancel an order in the FX Auction		
Comm	ent:		
From allowe book a	T24-002 an order already exists in the FX Aud d if the firm is listed as a Bank. Identify an instru ttached.	ction order boo nent that has th	k. This will only be ne FX Auction Order
Activi	y Steps		
#	Test Step	Expected Re	sult
1.	Logon to Native Heavy Gateway	Logon successful.	
2.	Submit an order to the FX auction	Order received	
3.	Cancel order	Order cancel Receive Exe the Native He	led successfully cution reports on eavy Gateway

Test Case	ID:	Gateway description	Mandatory Self-Conformance / Supported Test			
T24- 004	F Ir	X Auction Automation (Currency Market nstruments)	N	Supported test		
Descr	Description:					
Ability	to exec	cute an order in the FX Auction				
Comn	nent:					
This w FX Au	vill only action O	be allowed if the firm is listed as a Bank. I rder book attached.	dentify an inst	rument that has the		
Activi	ity Step	9S				
#	Test S	Step	Expected Re	sult		
1.	Logon Gatew	n to Native Heavy Gateway, Post Trade vay and Drop Copy gateway	Logon successful.			
2.	Subm	it orders to the FX auction	Order submited			
2.1	Subm	it 2 buy orders (At least 10 is size)	Order receive	ed		
2.2	Subm	it 1 sell order (At least 15 in size)	Order receive	ed		
3.	Execu point)	ite in the auction (Contact CSC at this	Trade executed successfully			
4	Recor in the	d the details of the trade messages sent Conformance Test Report	Receive Execution reports on the Native Heavy Gateway; Drop Copy Gateway.			
			Receive Trac on the Post T	le Capture report rade Gateway;		
			Receive Trac stats messag market data g	le and Extended le on the MITCH gateway		

4.21 G1 Error Handling

Test Ca ID:	Se All Gateways	Mandatory	Self-Conformance / Supported Test			
G1-00	Logon after Suspension / Un-suspension	Y	Supported Test			
Descrip	Description:					
Verify Lo Call Cus	ogon after suspension or un-suspension of Interfactory tomer Support to book time for executing this test	ce User ID. with a CTA.				
Comme	nt:					
This tes Repeat	t case must be repeated for every interface / ser per Interface / Service that the client subscribe	vice that the clies to: disconne	ent subscribes to I.e. ect from connection			
•	Trading Interfaces					
	 Native Trading Gateway 					
	 Native Enhanced Trading Gateway 					
	 Native Recovery Gateway 					
	 Fix Trading Gateway 					
	 Post Trade Gateway 					
	 Drop Copy Gateway 					
•	Information Interfaces					
	• FIX/FAST Replay Service (any channel)					
	 FIX/FAST Recovery Service (any channe))				
	 MITCH Replay Service 					
	• MITCH					
	 Recovery Service 					
When e to conne	xecuting this test case for the Information Service act to and provide details in the comments section	s, please choo of the Conform	se any one channel ance Test Report			
Activity	Steps					
#	Test Step	Expected Res	sult			
1.	Remain logged in to all interfaces/services where applicable	Interface Use suspended	r ID (CompID)			
	Request CTA to suspend Interface User ID (CompID)					
2.	Establish a connection and Logon to the applicable Gateway(s).	Logon(s) reje	cted.			
3.	Record the details of the Logon failure in the	Interface Use	r ID (CompID)			
	Conformance Test Report	Error Respon	se received			
4.	Terminate all client connections.	Interface Use	r ID (CompID) un-			
	Request CTA to un-suspend Interface User ID (CompID)	suspended				
5.	Establish a connection and Logon to the applicable Gateway(s).	Logon(s) suc	cessful.			
6.	Record the details of the Logon success Conformance Test Report	Interface Use	r ID (CompID)			

4.22 G2 FIX Session Handling

Test Case I	D:	FIX Gateways – Trading interfaces	Mandatory	Self-Conformance / Supported Test		
G2-0	01	Heartbeats during inactivity	Y	Supported Test		
Descri	Description:					
Verify Call Cu	the e ustor	xchange of heartbeats between the client and ner Support to book time for executing this te	l server during st with a CTA.	periods of inactivity.		
Comm	nent:					
This te client choose comme	est ca initiat e any ents	tse is applicable if it can be supported by a clie ted messages. This test is mandatory unle y one channel from the below list to conn section of the Conformance Test Report.	ent. I.e. the clie ess agreed wit ect to and pro	ent is able to disable th the JSE. Please ovide details in the		
•	Tra	ding Interfaces				
		 Fix Trading Gateway 				
		 Post Trade Gateway 				
		 Drop Copy Gateway 				
Activit	ty St	eps				
#	Tes	t Step	Expected Re	sult		
1.	Esta app	ablish a connection and Logon to the licable Gateway.	Successful L	ogon.		
2.	Stay clie	ys inactive i.e. make sure that there are no nt initiated messages sent to the server.	No client initiation sent to the set	ated messages erver.		
	Mał	se sure there are no unexpected	Server sendi messages to	ng Heartbeat the client.		
	disc few	connects within a reasonable timeframe (a minutes)	Client is resp Heartbeat me server.	onding to essages sent by the		
3.	Rec	cord the test start time and whether any	Gateway			
	aisc Rep	connects occurred in the Conformance Test	Test Start Tir	ne		
	ľ		Test End Tim	ne		
			Interface Use	er ID (CompID)		

Test Case	ID:	FIX Gateways – Trading interfaces	Mandatory	Self-Conformance / Supported Test			
G2-0	02	Client Resend Request	Y	Supported Test			
Description: Validate Client Resend Request. Call Customer Support to book time for executing this test with a CTA.							
Comn	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.							
•	Tra	ding Interfaces					
		 Fix Trading Gateway 					
	 Post Trade Gateway 						
		 Drop Copy Gateway 					
Activity Steps							
#	Tes	t Step	Expected Result				
1.	Esta app	ablish a connection and Logon to the licable Gateway.	Successful Logon.				
2.	Sub	mit an Order and disconnect immediately	Order successfully submitted and has a valid order status.				
	The exe to lo	order will need to be an order that will not cute immediately in order to give you time ogoff and miss messages.	Server is sending Execution Report back to the client however the client is disconnected.				
3.	Rec	onnect and Logon.	Successful L	ogon.			
	Sen with the rece	d a Resend Request message MsgType=2 tags BeginSeqNo and EndSeqNo set to sequence number of the Execution Report sived while executing step 2 above.	Server resen Report back	ds Execution to the client.			
3.	Rec	ord the test details in the Conformance	Gateway				
	163	пероп	Test Start Time				
			Test End Tim	ie			
			Interface Use	er ID (CompID)			
			Execution ID				
			Order ID				

4.23 Optional Test Cases

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

Test ID:	Case	Trading Gateway – Trading interfaces	Mandatory	Self-Conformance / Supported Test				
ОТ1-	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.								
Comn	nent:							
Remain logged in. The test needs to be executed during the Continuous Trading session.								
Activity Steps								
#	Test Step Expected Resul		sult					
1.	Enter	an Order through a specific CompID.	The order is successfully submitted and resides on the order book.					
	Assu order	me there is no matching order for this in the order book.	Receive an Execution Report.					
2.	Canc to ste	el the Order through a different CompID p 1.	The order is successfully cancelled.					
			Receive an E	execution Report.				
3.	Record the details of the order messages sent and the Execution Report in the Conformance		Interface User IDs (CompIDs)					
			Order IDs					
	1000	i oport	Client Order IDs					
			Execution IDs					
	I							

Test ID:	Case	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.								
Comn	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 matcl Com	an Order through a specific CompID that hes with another order from the same DD.	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		Interface User IDs (CompIDs)					
	Cance	ellation Trade Capture Report in the ormance Test Report.	Trade IDs					
			Trade Report IDs					
			OrigTradeID					
			OrigTradeDate					