CME ClearPort® (CP) API v.2.0

Certification Process Checklist

Revision History

By (full name)	Date	Reason & Description of Changes	Version
Mildred Rodriguez	10/23/2009	Initial Draft	1.0
Michael Healy	12/07/2009	MQ Client specifics included	1.1

Preparation

Registration Information

**1. Utilities Agreement
Forms Necessary**

- ☐ Contact Third Party Services to receive a copy of the Utilities Agreement.
- ☐ You must agree to the Developer's Utility Agreement in order to continue.

For More Information

Contact Market Operations Technical Support at 1-800-275-6215 or via e-mail at thirdpartyservices@cmegroup.com.

2. Download and Review the CME ClearPort® (CP) API v.2.0 Documentation

Description

CME has prepared a definition of the FIXML 5.0SP2 protocol for retrieval of resource data and trade submission supported by the CME ClearPort® API v.2.0 available at http://www.cmegroup.com/clearing/clearport/index.html. Your application must adhere to this definition.

Action Required

- ☐ Download and review the CME ClearPort® API v.2.0 Documentation.

For More Information

Contact the Market Operations Technical Support group (formerly known as Third Party Services) at 1-800-275-6215/ 212-301-4720 or via email at thirdpartyservices@cmegroup.com.

Attend Kickoff Meeting

3. Schedule and attend kickoff meeting to:

- ☐ Meet your Exchange Certification Team.

- ☐ Review the Exchange's FIXML implementation.

- ☐ Review the Certification environment connectivity.

Action Required

☐ Schedule the kickoff meeting with the Market Operations Technical Support group one week in advance.

☐ Review the API definition in the Implementation Guide and participate in meeting.

For More Information

Contact the Market Operations Technical Support group (formerly known as Third Party Services) at 1-800-275-6215/ 212-301-4720 or via email at thirdpartyservices@cmegroup.com.

Submit Forms

4.   Submit Required Forms

Description

The forms listed below must be received the Market Operations Technical Support group prior to accessing the Certification Environment.

Forms Necessary

☐ CME ClearPort® API v.2.0 Certification Registration Form (hard and softcopy): This form specifies and provides the Exchange with the company and user identifiers, IP addresses and port numbers that the API will use to define connections to the Certification environment. You will be provided a corresponding IP address and port number.

Actions Required

☐ Complete the form and submit the CME ClearPort® API Certification Registration Form to the Market Operations Technical Support group no less than 2 weeks before the planned start of certification testing.

For More Information

Contact the Market Operations Technical Support group (formerly known as Third Party Services) at 1-800-275-6215/ 212-301-4720 or via email at thirdpartyservices@cmegroup.com.

Set Up Communication Facilities

5.   Configure Certification Connection

Description

Although certification testing is typically performed via the public internet, it is necessary that your network be correctly configured to the Exchange's TCP Port and IP Address exposed within your network. MQ Series clients will need to contact Market Operations Technical Support for connectivity requirements.

Forms Necessary

The CME ClearPort® API v.2.0 Certification Registration Form should have been completed and returned by this point.

Action Required

☐   Configure your firewall.

For More Information

Contact the Market Operations Technical Support group (formerly known as Third Party Services) at 1-800-275-6215/ 212-301-4720 or via email at thirdpartyservices@cmegroup.com.

Development and Certification

Complete Development

6.   Develop Client Application

Description

Develop a client application to receive data and submit trades in accordance with the CME ClearPort® API Definition.

Action Required

☐   Code and test the client application.

For More Information

Contact the Market Operations Technical Support group (formerly known as Third Party Services) at 1-800-275-6215/ 212-301-4720 or via email at thirdpartyservices@cmegroup.com.

7.   Schedule and Execute the Certification Test

Description

The Certification Test comprises of 2 parts:

1) Functional test: Tests your system's compliance with the Exchange's trading rules and data validation.

2) Operational test: Exercise your system by means of a mock trading session.

Action Required

☐ Schedule the Certification Test with to the Market Operations Technical Support group 2 weeks prior to production date.

☐ Review and Execute the Certification test Script.

☐ Capture log files (raw messages in the Test Script below) as requested by the Market Operations Technical Support group.

☐ Submit log files to the Market Operations Technical Support group upon request.

For More Information

Contact the Market Operations Technical Support group (formerly known as Third Party Services) at 1-800-275-6215/ 212-301-4720 or via email at thirdpartyservices@cmegroup.com.

Pre-Production

Submit Forms

8.   Submit Required Forms

Description

The forms listed below must be received online by the Market Operations Technical Support group prior to accessing the Production Environment.

Forms Necessary

☐ CME ClearPort® API v.2.0 Pre-Production Form (hard and softcopy): This form specifies and provides the Exchange with the company and user identifiers, preferred mode of connection to the Exchange, IP addresses and port numbers that the API will use to define connections to the Production environment. You will be provided a corresponding IP address and port number.

☐ CME ClearPort® Registration (online): If you have not already registered for CME ClearPort®, it is necessary to do so at this time at http://www.cmegroup.com/clearport/registration.html.   The registration also requires click-through acceptance of the following legal agreements:

- o Exchange User License Agreement
- o Exchange Privacy Policy
- o Exchange Rules

Actions Required

☐ Complete and submit the CME ClearPort® API Pre-Production Form to the Market Operations Technical Support group no less than 2 weeks before the planned launch in Production.

For More Information

Contact the Market Operations Technical Support group (formerly known as Third Party Services) at 1-800-275-6215/ 212-301-4720 or via email at thirdpartyservices@cmegroup.com.

Set Up Communication Facilities

9.   Configure Production Connection

Description

It is necessary that your network be correctly configured to the Exchange's TCP Port and IP Address exposed within your network.

Forms Necessary

The CME ClearPort® API v.2.0 Pre-Production Form should have been completed and returned by this point.

Action Required

☐ Configure your firewall.

☐ Configure your preferred mode of connection.

For More Information

Contact the Market Operations Technical Support group (formerly known as Third Party Services) at 1-800-275-6215/ 212-301-4720 or via email at thirdpartyservices@cmegroup.com.

Complete Production Readiness Test

10.   Execute Connectivity Test

Description

To ensure that your server establishes and maintains a connection with the Exchange's server.

Action Required

☐ Configure your production server to connect to the Exchange's production server.

☐ Schedule the Connectivity Test with Third Party Services.

☐ Execute a ping test.

☐ Connect to the Exchange's server and log on.

☐ Monitor the connection for at least 15 minutes; Third Party Services will do likewise upon request.

Prerequisites

Successful completion of the Certification Test.

For More Information

Contact the Market Operations Technical Support group (formerly known as Third Party Services) at 1-800-275-6215/ 212-301-4720 or via email at thirdpartyservices@cmegroup.com.

11.   Production Monitoring

Description

To ensure that XML and FIXML messages are being correctly received and processed.

Action Required

☐ Prior to commencement of entering trades into your system, notify Third Party Services so that your activity can be monitored during the first hour of trading.

Timeframe

This activity takes place at the start of trading on the first day of trading for the partner.

Prerequisites

- Successful completion of the Certification and Connectivity tests.

- Completion and submission of all required forms and agreements.

For More Information

Contact the Market Operations Technical Support group (formerly known as Third Party Services) at 1-800-275-6215/ 212-301-4720 or via email at thirdpartyservices@cmegroup.com.

Appendix A

CME ClearPort® API v.2.0: Sample Certification Test Script

Negative results on outbound acknowledgements may appear. Review the CME ClearPort® API Implementation Guide's Appendix B on page 105 located at http://www.cmegroup.com/clearing/files/ClearPort_API_v2.0_Implementation_Guide.pdf for a list of error messages.

Functional Test Script

Each test comprises an action and one or more observations of expected results. In the table below, actions are in **boldface** and observations in normal type. It is recommended that out-rights and strips are tested along with positive, negative and zero prices.

The Exchange's activities will be performed via CME ClearPort® (CP). Please submit a script of trades entered into the CP API to the Market Operations Technical Support group for verification and certification on the CP GUI. You may also verify the trades on the CP GUI.

MQ Series Clients Authentication: Authentication is not required since MQ is a secure method of transport. MQ Clients are excused from Steps 1, 2 and 14.

MQ Series Clients Retrieval of Resource Data: To obtain product reference data MQ Series clients must use the FIXML Product Reference Files (FPRF) generated daily by CME Group. MQ Clients are excused from Steps 3, 4 and 7.

Step	Partner	Exchange
Connect		
1.	**Log on to CP API v.2.0** (see logon.xml)**.** Receive acknowledgment.	CP API logs the inbound logon. CP API logs the outbound acknowledgement.
Change Password		
2.	**Request new password upon initial login** (see changepassword.xml)**.** Receive acknowledgment.	CP API logs request. CP API changes password and provides the outbound acknowledgement.
Retrieval of Resource Data (XML)		

3.	**Request resource data daily:** **Products** (see SecurityDefRequest.xml) Receive XML resource data feed (see Implementation Guide).	CP API logs request. CP API provides resource data.
4.	**Request resource data daily:** **Terms for Products** (see requestTermsForProducts.xml) Receive XML resource data feed (see Implementation Guide).	CPC API logs request. CPC API provides resource data.
5.	**Request resource data daily:** **Accounts** (see requestAccounts.xml) Receive XML resource data feed (see Implementation Guide).	CPC API logs request. CPC API provides resource data.
6.	**Request resource data daily:** **Traders = principals to the trade** (see requestTraders.xml) Receive XML resource data feed (see Implementation Guide).	CPC API logs request. CPC API provides resource data.
7.	**If entering OPTIONS, request resource data daily:** **Strike = strike prices for options** (see requestStrikes.xml) Receive XML resource data feed (see Implementation Guide).	CPC API logs request. CPC API provides resource data.
	Trade Entry in FIXML	
8.	Select a product from the listed commodities received from the resource data feed. **Submit a Trade Entry in FIXML** (see tradeEntry.xml for all the required data needed for a trade entry).	CPC API logs the trade submission. Confirmation of trade submission sent.

	Receive FIXML trade submission confirmation (see Implementation Guide).	Trade appears on CPC GUI blotter with venue 'cpcapi'.
9.	For a confirmation that the trade has cleared, request a Trade Query. **Request a Trade Query in FIXML** (see tradeQuery.xml). Receive FIXML trade query confirmation sent (see Implementation Guide's section 3.3.2 page 10 for response).	CPC API logs the trade query request. Confirmation of trade status.
Void in FIXML		
10.	Select a trade previously submitted. **Submit a Void for a Trade in FIXML** (see tradeVoid.xml). Receive FIXML void trade submission confirmation (see Implementation Guide's section 3.3.3 page 11 for response).	CPC API logs the trade submission. Confirmation of trade submission sent. Trade appears on CPC GUI blotter with venue 'cpcapi' and a V next to it for voided.
11.	For a confirmation that the trade has been voided, request a Trade Query. **Request a Trade Query in FIXML** (see tradeQuery.xml). Receive FIXML trade query confirmation (see Implementation Guide's section 3.3.2 page 10 for response).	CPC API logs the trade query request. Confirmation of trade status sent.
Strip Trade Entry in FIXML		
12.	Select a product from the listed commodities received from the resource data feed. **Submit a Strip Trade Entry in FIXML** (see stripTradeEntry.xml for all the required data needed for a strip trade entry). Receive FIXML trade submission confirmation (see Implementation Guide's section 3.3.1 page 9-10 for	CPC API logs the trade submission. Confirmation of trade submission sent. Trade appears on CPC GUI blotter with

	response).	venue 'cpcapi'.
13.	For a confirmation that the trade has cleared, request a Trade Query. **Request a Trade Query in FIXML** (see tradeQuery.xml). Receive FIXML trade query confirmation sent (see Implementation Guide's section 3.3.2 page 10 for response).	CPC API logs the trade query request. Confirmation of trade status.
Disconnect		
14.	**Log off** (see logoff.xml). Receive acknowledgment.	CPC API logs the inbound logon. CPC API logs the outbound acknowledgement.