Inbound FIXML Connectivity Setup Guide
Real-time MQ and Batch SFTP
(for Clearing Members and Service Bureaus only)

Version 2.0
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Contents

Inbound FIXML Connectivity Mechanisms

There are two types of mechanisms that can be used to send Inbound FIXML post-trade transmissions to OCC systems:

- Real-Time Mechanism – Allows your organization to send data in real time fashion to OCC via IBM's real time messaging system – Websphere MQ.

- Batch SFTP Mechanism – Using an SFTP, your organization can send files to OCC via leased lines or internet.

Before You Begin

Before you can successfully send post-trades in FIXML format to OCC, you must provide information to OCC so that both the sender and OCC have the file and connection details necessary to successfully send and process post-trades.

The method for communicating these details to OCC is the *Inbound FIXML Technical Specifications Form*. The *Inbound FIXML Technical Specifications Form* must be completed before OCC can set up and configure a clearing member as sender of post-trades data in the FIXML format.

Complete the Inbound FIXML Technical Specifications Form

The *Inbound FIXML Technical Specifications Form* is available from OCC Member Services. Contact your Clearing Member representative when you are ready to complete the form.

OCC uses the *Inbound FIXML Technical Specifications Form* to gather details necessary to allow receipt by OCC of post-trade data. After the information from this form is provided to OCC Member Services, you will receive the documentation necessary to set up the connectivity including details specific to your organization. You may work with multiple groups within OCC to complete the configuration and setup.

If you have additional questions or comments, please contact your Member Services representative or the OCC Help Desk at one of the following:

800-621-6072 or 800-544-6091 (U.S.)
800-424-7320 (Canada)
memberservices@theocc.com

Setup Process for MQ Senders

The prerequisites necessary to establish real-time connectivity with OCC to send real-time Inbound FIXML post-trades are:

- A dedicated and secure leased line from the recipient to OCC.

- WebSphere MQ manager installed on sender's host server.

As post-trades are ready to be sent to OCC for processing, the post-trades messages need to be put on the sender's side of the queue and then delivered to OCC. When post-trades messages are received by OCC, they will be processed and after proper validation, the positions will be updated.

The technical information needed to setup the connectivity is covered in the *Inbound FIXML Technical Specifications Form*.

Setup Process for Pull Recipients

Pull recipients connect and get DDS transmissions from OCC servers via SFTP. SFTP servers run behind a load balancer for high availability.

The load balancer redirects recipient requests to one of the two SFTP data servers. These two data servers have a shared directory structure that allows the clients to access either physical server to access their DDS transmissions home directory.

SFTP runs on all servers with zlib Compression enabled. If a connecting SFTP client supports zlib compression, the SFTP server will force compression.

The following basic configuration elements must be present before a recipient can configure and pull DDS transmissions from OCC:

- A method for connecting and moving data from an OCC server to the recipient host server (for example, ISDN).

- SFTP client to connect and transfer files from OCC.

- Public SSH key to be paired with the corresponding private key for SSH handshake authentication.

- A user ID and password will be supplied by OCC technical staff.

Any SSH v3 compliant SFTP client should work with OCC SFTP servers.

If the basic configuration elements are in place, refer to the following steps to configure the recipient host environment for Pull transmissions.

1. Complete the *Inbound FIXML Technical Specifications Form*.

2. After the form is completed and returned to OCC, you will receive a user ID and password to be used for the connection.

3. You must submit your SSH public Key to OCC technical staff.

4. Coordinate with OCC Middleware Services to pull a test file from OCC or troubleshoot connection issues.

Testing Before Live Production

Before accepting and processing any new post-trade types for a given clearing member, OCC will require that a number of acceptance test will be performed. The acceptance tests mainly consist of ensuring the validity and format of the post-trade files in a test environment (i.e. where the positions that will be updated are not part of the production system).

Even if the testing environment will be different, the system used for receiving files from the clearing members/service bureaus will be the same that will be eventually used to process post-trades files in production.

- For Batch mechanism, follow the process described in the sections above. While in testing mode the files to be sent to OCC will need to have special test qualifier in the file name. For example, if the intended final file name for a post-trades file is SpreadsCM00001.xml than during the testing phase the file should be delivered under the SpreadsCM00001_**test**.xml name.

- For the real-time mechanism, the queue names used during the testing phase will have a test qualifier included in the name.

Revision History

Version	Date	Version Updates
1.2	7/03/2018	• Updated OCC logo on cover page. • Added Revision History.
1.3	12/23/2019	Revise instructions for obtaining *Inbound FIXML Technical Specifications Form.*
2.0	9/30/2021	Remove references to batch push transmissions via NDM (Connect:Direct).