ClearLink Overview

This guide is designed to give parties interested in connecting to the LCH ForexClear (LCH.FXC) Service a high-level overview of LCH’s OTC Clearing Service Direct Connectivity protocol, ClearLink.

**DIRECT CONNECTIVITY**

ClearLink provides an interface mechanism for Market Participants and Market Infrastructure to interact with LCH’s OTC Clearing services. It consists of following:

01. A messaging standard that describes the format and the content of messages that are supported by ClearLink.
02. A specification of the messaging interactions supported by ClearLink.
03. A specification of products supported by ClearLink.

The figure below provides a high-level view of ClearLink:

![ClearLink Diagram](image-url)

**Figure 1.** ClearLink Overview

In Scope  
Out of Scope
The LCH.FXC ClearLink version F1.3 (May 2014) messaging specification covers the following message interactions:

<table>
<thead>
<tr>
<th>Party Role</th>
<th>Business Processes</th>
<th>Message Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confirmation Platform</td>
<td>Trade Registration</td>
<td>requestClearing</td>
</tr>
<tr>
<td></td>
<td>Trade Cancellation</td>
<td>clearingAcknowledgement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>clearingConfirmed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>clearingRefused</td>
</tr>
<tr>
<td></td>
<td>Non-economic Updates</td>
<td>requestTradeReferenceInformationUpdate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>tradeReferenceInformationUpdateAcknowledgement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>tradeReferenceInformationUpdateException</td>
</tr>
<tr>
<td></td>
<td></td>
<td>messageRejected</td>
</tr>
<tr>
<td>FCM</td>
<td>Trade Take-up Consent</td>
<td>requestConsent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>consentAcknowledgement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>consentGranted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>consentRefused</td>
</tr>
<tr>
<td></td>
<td>Collateral Allocation</td>
<td>requestCollateralAllocation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>collateralAllocationAcknowledgement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>collateralAllocationAccepted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>collateralAllocationRejected</td>
</tr>
</tbody>
</table>

Table 1. ClearLink version F1.3 Specification Scope

ClearLink is based on FpML (Financial products Markup Language), which is an industry-standard protocol for complex financial products. FpML is based on XML (eXtensible Markup Language), a standard meta-language for describing data shared between applications.

The version of FpML must be 5.6 to conform to version F1.3 of the ClearLink specification.

Only the following FpML message types are accepted by ClearLink:

01. requestClearing
02. consentAcknowledgement
03. consentGranted
04. consentRefused
05. clearingAcknowledgement
06. requestCollateralAllocation
07. requestTradeReferenceInformationUpdate
DIRECT CONNECTIVITY

ClearLink only sends the following FpML message types:

<table>
<thead>
<tr>
<th>01. clearingAcknowledgement</th>
<th>07. messageRejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>02. clearingRefused</td>
<td>08. requestConsent</td>
</tr>
<tr>
<td>03. clearingStatus</td>
<td>09. consentAcknowledgement</td>
</tr>
<tr>
<td>04. clearingConfirmed</td>
<td>10. collateralAllocationAcknowledgement</td>
</tr>
<tr>
<td>05. tradeReferenceInformationUpdateAcknowledgement</td>
<td>11. collateralAllocationAccepted</td>
</tr>
<tr>
<td>06. tradeReferenceInformationUpdateException</td>
<td>12. collateralAllocationRejected</td>
</tr>
</tbody>
</table>

PARTY ROLES

01. Central Counterparty
This is the party who provides the CCP (Central Counterparty) role by novating the original trades. This role is carried out by LCH.FXC. This role is also referred to as the “clearer”.

02. Trade Source
This party identifies the source of the trade to the Clearing Service. This role is referred to as the “Trade Source”. For LCH.FXC ClearLink version F1.3 this will be the confirmation platforms (trade matching platforms) only.

03. Execution Venue
The facility where the trade was executed, such as a Swap Execution Facility (SEF).

04. Clearing Broker / Futures Commission Merchant (FCM)
The Clearing Broker ("CB") / FCM is a financial institution that is a direct member of the Clearing House and is able to offer Client-clearing services to other parties. This role is referred to as "Clearing Broker".

05. Client
A Client is the price-taking party in the original, bi-lateral transaction that will be cleared. They are typically buy-side financial institutions that are not direct members of the Clearing House, hence they need an intermediary to face the Clearing House on their behalf. This role is referred to as “Client”.

DIRECT CONNECTIVITY
**MESSAGE VALIDATION**

01. ClearLink requires that messages conform to the FpML standard, 5.6 as stated above, and additionally adhere to business rules specified in the detailed specification document. Messages inbound are first validated against the FpML schema, and if successful, further validation is performed to ensure that the message conforms to the specified business rules. A non-conforming message shall be rejected by ClearLink, and a messageRejected message shall be sent to the sender informing of the reason for rejection.

02. ClearLink also requires that all participants exchanging messages via ClearLink perform their own message validation. ClearLink shall accept a messageRejected message from a participant as an indication that the message has been rejected due to non-conformance, and route this message to the clearing service.

**NETWORK ACCESS**

The interconnection network between LCH.FXC and the Members is via IBM MQ messaging over a dedicated BT Radianz connection.

**FURTHER DOCUMENTATION**

The ClearLink specification defines additional rules and restrictions that must be followed when creating the FpML messages. The detailed specification can be provided when onboarding, along with example messages, error codes, the products ClearLink supports, and connectivity related documentation.

**CONTACT US**

**Phil Atkinson**  
Global Head of Member Sales & Relationship Management  
Email phil.atkinson@lch.com  
Phone +44 20 7426 6389  
Mobile +44 7515 596 846

---

**USA**  
+1 212 513 8266  
**APAC**  
+61 2 8259 4109  
**Website** lch.com/services/forexclear  
**Twitter** @LCH_Clearing

---

**DISCLAIMER** This document has been provided to you for informational purposes only and is intended solely as an overview of certain aspects of or proposed changes to services provided by LCH Group Holdings Limited or any of its group undertakings (group undertakings shall be construed in accordance with section 1161 of the Companies Act 2006) (collectively, “LCH Group”). This document does not, and does not purport to, contain a detailed description of any aspect of a service provided by LCH Group or any other topics discussed in this document, and it has not been prepared for any specific person. This document does not, and does not seek to, constitute advice of any nature. You may not rely upon the contents of this document under any circumstance and should seek your own independent legal, investment, tax and other advice. The information and any opinion contained in this document does not constitute a recommendation or offer with respect to any derivative contract, financial instrument, security or service. LCH Group makes no representation, warranty, condition or guarantee (whether express or implied) that the contents of this document are accurate, complete or up-to-date, and makes no commitment to offer any particular product or service. LCH Group shall have no any liability for any losses, claims, demands, actions, proceedings, damages, costs or expenses arising out of, or in any way connected with, the information contained in this document. Copyright © LCH Limited 2020. All rights reserved. SwapClear, ForexClear and SwapAgent are registered trademarks of LCH. The information contained in this document is confidential. By reading this document, each recipient agrees to treat it in a confidential manner and will not, directly or indirectly, disclose or permit the disclosure of any information in this document to any other person (other than its regulators or professional advisers who have been informed of the confidential nature of the information) without the prior written consent of LCH Group.