

SwapClear Quick-Start Guide

For Approved Trading System (ATS) Connectivity

LCH The Markets'
Partner

SwapClear

LCH offers a variety of swap classes, indexes and maturities across 21 currencies and over tenors stretching from 1 month to 51 years. This quick-start guide provides an overview of the requirements for connecting your ATS to LCH SwapClear, either directly or indirectly, so that you can begin submitting OTC IRSwaps for clearing.

WHY SwapClear?

SwapClear is LCH's market leading IRS clearing service.

SwapClear covers 95 percent of the vanilla IRS market, which includes the most actively traded currencies in the marketplace.



Award-winning, market-leading SwapClear clearing service



Global offering covering 21 currencies, with 24-hour/5.5-days-a-week service



Full suite of reporting and service MIS to support customer audit and reconciliation requirements

GETTING STARTED

Connect to SwapClear
via ClearLink

First, you will need to decide how you would like to connect to SwapClear:

DIRECT

INDIRECT

Connect to SwapClear

via a middleware provider

Connecting to SwapClear as an ATS takes approximately three months, from initiation to go live. The exact timing is dependent upon the level of independent testing you

1. Initiation & Documentation
2. Connectivity & Build
3. Testing
4. Go Live

GO - LIVE TIMELINE FOR ATSS

WEEKS 1-8		WEEKS 8-10	WEEKS 10-12
LCH Membership Documentation and Approval	Connectivity and Build	Scripted BAU and Default Management Testing	Go-Live

INITIATION AND DOCUMENTATION

Our product and onboarding teams will help get you started, providing full details on all the steps required to go live.

Whether you connect to SwapClear directly or indirectly, you will need to complete the following legal and operational documents as part of the SwapClear ATS onboarding process:

ATS Connection Documentation

DOCUMENT	DESCRIPTION
Non-Disclosure Agreement (NDA)	Legal confidentiality agreement between LCH SwapClear and ATS
Clearing Services Agreement (CSA)	Legal agreement between LCH SwapClear and ATS
Joint Operating Procedures	Addendum to CSA detailing principles around operating procedures and SLAs that must be adhered to
Static Data Form	SwapClear Venue Onboarding Questionnaire

ATS's connecting to SwapClear will also be subject to internal approval from LCH as well as approval from the relevant regulatory bodies.

CONNECTIVITY AND BUILD: DIRECT CONNECTIVITY

Choosing a direct connection will allow you to submit trades for clearing directly into SwapClear via the LCH ClearLink API.

Direct connectivity on the ClearLink API is supported over MQ via BT Radianz. To help fully integrate your connection, SwapClear will provide:

1. Full messaging and product specifications
2. Structured testing to rigorously check your messaging build
3. Technical support as needed

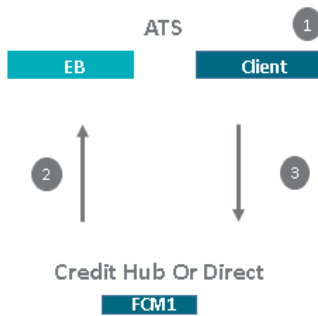
A direct connection to SwapClear allows you to benefit from:

1. Direct queues into the clearing house
2. No additional middleware provider fees
3. Lower latency due to omission of middleware
4. Incident management procedures between SwapClear and your organization, reviewed on a regular basis

Direct Connectivity to SwapClear is established in accordance with our ClearLink specification, available on the LCH Secure Area by registering at the following link - https://www.lchclearnet.com/secure_area/register.asp

01.

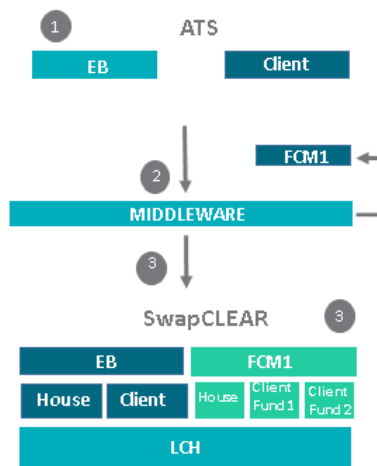
Pre-Trade Credit Risk



1. Client submits order to ATS along with a selection of FCM and CCP.
2. ATS sends credit approval request to FCM.
3. FCM performs pre-trade credit check on client account and either rejects request or accepts and issues credit token for order.

02.

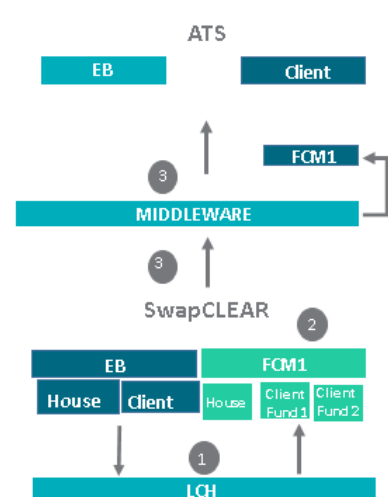
Submission For Clearing



1. EB fills client order.
2. ATS sends matched trade to LCH via a middleware provider. Message contains the FCM credit token.
3. LCH performs trade/ATS-FCM eligibility checks.
4. LCH sends notification of fill to respective FCM(s), which includes credit token assigned from FCM pre-trade credit check.

03.

Clearing



1. LCH runs incremental risk check and trade is novated or rejected for clearing.
2. LCH novates the trade by creating two new transactions - One between LCH and EB house and the second between LCH and client fund accounts.
3. LCH sends notification message to ATS via middleware provider and directly to EB and FCM. Message will include a unique SwapClear ID.

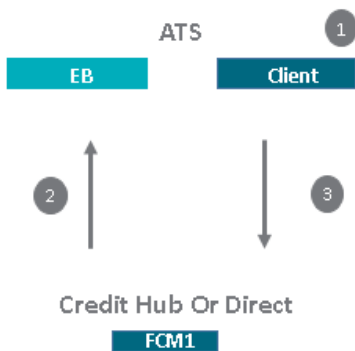
CONNECTIVITY AND BUILD: INDIRECT CONNECTIVITY

If you choose to submit trades for clearing via a middleware provider, you will need to establish a relationship with a SwapClear-approved provider: MarkitSERV and/or Traiana.

To help fully integrate your connection, SwapClear will provide:

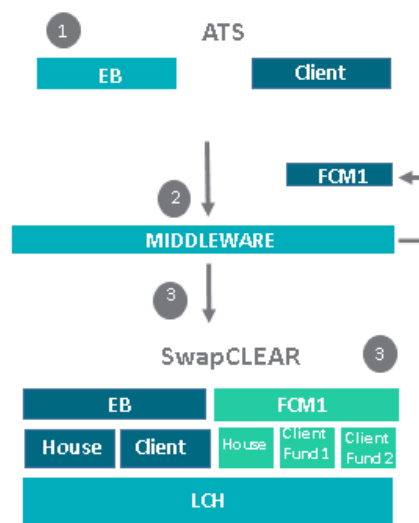
1. Full messaging and product specifications
2. Technical support as needed

01.
Pre-Trade Credit Risk



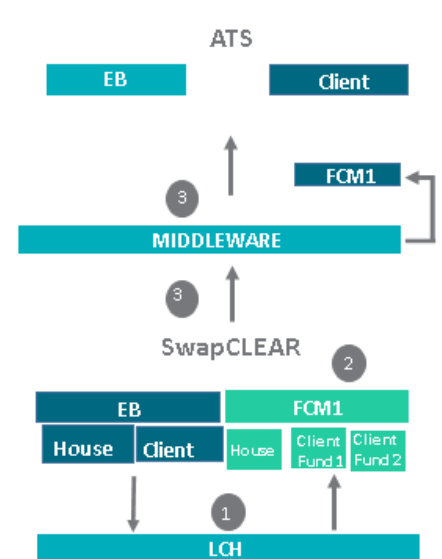
1. Client submits order to ATS along with a selection of FCM and CCP.
2. ATS sends credit approval request to FCM.
3. FCM performs pre-trade credit check on client account and either rejects request or accepts and issues credit token for order.

02.
Submission For Clearing



1. EB fills client order.
2. ATS sends matched trade to LCH via a middleware provider. Message contains the FCM credit token.
3. LCH performs trade/ATS-FCM eligibility checks.
4. LCH sends notification of fill to respective FCM(s), which includes credit token assigned from FCM pre-trade credit check.

03.
Clearing



1. LCH runs incremental risk check and trade is novated or rejected for clearing.
2. LCH novates the trade by creating two new transactions - One between LCH and EB house and the second between LCH and client fund accounts.
3. LCH sends notification message to ATS via middleware provider and directly to EB and FCM. Message will include a unique SwapClear ID.

TESTING

Once connectivity is established, our team will guide you through each stage of the testing process.

We offer dedicated testing cycles to allow for easy planning and to ensure you are ready to begin clearing OTC Interest Rate Swaps with SwapClear.

Testing Outline

DIRECT ATS	INDIRECT ATS	TESTING TYPE	DESCRIPTION
✓	✓	Connectivity Testing	Initial ping and messaging testing, build out to ClearLink specifications and physical connectivity testing.
✓	✓	End-to-End Certification Testing	Fully scripted, customized tests to cover all your specific business-as-usual scenarios.

GO LIVE

SwapClear coordinates several pre-go live checks to ensure you are fully connected, static data is reconciled, and you are ready to begin trade submission.

To guarantee your connectivity is fully integrated and you are ready to launch, we will conduct a final production smoke test to ensure all relevant mapping and connections are in place.

Once integration is validated, trades become fully eligible for production submission to LCH SwapClear and the SwapClear Member community is informed that the new venue is live and available for trade submission.

For further information on how to get started with SwapClear ATS onboarding, please contact:

SwapClear Rates Product Team

Email ratesproduct@lch.com

Telephone

USA 212-513-5604

UK +44 2074267957

Website

lch.com/swapclear



@LCH_Clearing

DISCLAIMER The contents of this document have been provided to you for informational purposes only and are intended as a broad overview. The services of LCH. Clearnet Limited ("LCH") are provided in accordance with, and subject to, its rulebook and other ancillary documentation. You must not rely upon the contents of this document under any circumstances, and you should seek your own independent legal and other advice. LCH makes no representation, warranty or guarantee (whether expressed 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 shall not have 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, except for any other liability that cannot be excluded by law. Nothing in this document should be taken as a public offer to sell or to buy any applicable securities or financial instruments.