

CLSA Limited.
ALP
"Crossing Engine"
User Guidelines

Version 1.92
March 2026

A. GENERAL

1. Introduction

   a. CLSA Limited ("CLSA") is licensed by the Securities and Futures Commission of Hong Kong ("SFC") for Providing Automated Trading Services subject to the requirements set out in Paragraph 19 and Schedule 8 of the Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission ("SFC Code of Conduct").

   b. CLSA's Alternative Liquidity Pool ("ALP") (hereafter referred to as "Crossing Engine") is a continuous, anonymous order crossing and automated trade reporting system which seeks to cross buy orders with sell orders, and report successful cross trades to the SEHK.

   c. The purpose of this document is to provide guidance to clients of CLSA who are "users" of the Crossing Engine or 3rd party ALPs i.e. whose orders may be routed to the Crossing Engine or 3rd party ALPs for crossing.

   d. Prior to routing orders to the Crossing Engine or 3rd party ALPs, users are advised to familiarize themselves with the information contained in this document.

   e. Prior to routing any order to the Crossing Engine or 3rd party ALPs for a user for the first time, CLSA is required to ensure that the document entitled "Crossing Engine User Guidelines" has been brought to the attention of the users of the Crossing Engine or 3rd party ALPs s. The latest version of this document is available at the Direct Market Access/Electronic Trading section of our website, at CLSA Terms of Business. This document is subject to change from time to time, due to the update of relevant rules and regulations by the SFC and SEHK.

   f. Users should contact their regular CLSA sales-trading contact with any queries related to the Crossing Engine or this document.

B. TRADING AND OPERATIONAL MATTERS

1. Users of the Crossing Engine

   a. Users of the Crossing Engine must be "qualified investors". A "qualified investor" means a person falling under paragraphs (a) to (i) of the definition of "professional investor" ("PI") in section 1 of Part 1 of Schedule 1 to the SFO ("Insitutional PI") or a person within the meaning of sections 4, 6(other than a person referred to in section 6(bii)) or 7 of the Securities and Futures (Professional Investor) Rules.

   b. "user" means an qualified investor whose orders are placed into or whose transactions are conducted in the Crossing Engine, and includes any qualified investor who/which is ultimately responsible for originating the instruction in relation to an order placed into, or a transaction conducted in the Crossing Engine.

2. User Tier Settings

   a. The following designated user tiers are set up in Crossing Engine:

Designated Tier Value in Crossing Engine	User Tier Names	Definitions
I	Institutional	A fund manager which is an Institutional PI
L	Liquidity Provider	An Institutional PI which engages in high frequency trading
P	Principal	CLSA Principal Flow (Please see below Section 5 for details)
B	Broker Dealer	A broker dealer regulated in Hong Kong or overseas
A	Alternative Liquidity Pool	Regulated ALP in Hong Kong or overseas

b. Users may select the crossing preference of their orders i.e. to cross with the orders from a particular tier(s) of users.

Example 1: A Liquidity Provider user ("L") may choose to cross only with orders from Institutional ("I") and Broker Dealer ("B") users. Crossing Engine will cross the "L" users orders only with orders from "I" and "B" users.

Example 2 : An Institutional user ("I") may choose not to cross with orders from Liquidity Provider "L". Crossing Engine will not cross the "I" user orders with orders from "L" users.

3. User Exclusion

An user can restrict its orders from crossing with orders from a particular user of a specifc tier(s) of users.

Example: A Liquidity Provider user ("L") may chose to cross with Alternative Liquditiy Pool("A") users except for a named user X.

4. Execution Price Perference

An user may choose execution price preference of its orders that are to be crossed in the Crossing Engine, for example, near touch or mid or better price.

5. CLSA "Principal Flow"

Orders in which the CLSA group of companies have any interest ("Principal Flow") can be routed to the Crossing Engine Internal Order Book for crossing, Principal Flow includes:

a. Where CLSA is trading as principal in the transaction;

b. Where a group company of CLSA is trading as principal in the transaction;

c. Any account in which CLSA or its group companies have an interest;

d. The account of any employee or agent of CLSA, or its group companies; or

e. Client facilitation orders

Order of users which are not CLSA Principal Flow ("Agency Flow") have priority over CLSA Principal Flow orders when such orders are being transacted at the same prices.

6. User Opt-out/Opt-in Arrangement

a. CLSA Crossing Engine

i. Users may opt-out of routing their orders to the Crossing Engine for crossing by notifying CLSA in writing of their desire to Opt-out by emailing clsa_alp_optout@clsa.com.

ii. Users may request to opt-out their cash desk orders but not opt-out their electronic trading orders, or vice versa.

iii. Users may specify that their orders do not cross with orders from another user if these orders originate from another broker's ALP (User tier "Alternative Liquidity Pool").

iv. Users may opt-out individual orders by indicating as such on the relevant FIX tag in the order message, as described in below B10.

b. Routing to 3rd party ALPs

i. CLSA has established FIX connectivity with other licensed ALPs as detailed in Table 1 below.

ii. By default user orders will not be routed to 3rd party ALPs.

iii. Users may request that their orders are eligible for routing to 3rd party ALPs.

iv. Qualified investor, who is not an user of Crossinig Engine, may request that their orders are eligible for routing to 3rd party ALPs only ("ALP user")

v. Prior to routing order from users or ALP usersto 3rd party ALP's, CLSA are required to bring the relevant ALP Guidelines to the attention of the users or ALP users.

Table 1 – ALPs regulated by the SFC Type 7 Providing Automated Trading Services

Broker	Industry Name
Virtu ITG Hong Kong Limited	ITG POSIT " POSIT Guidelines hong Kong" can be found in Virtu ITG Asia Pcific Regulatory Disclousures section in its Regulatory Disclosures page
Liquidnet Asia Limited	Liquidnet Asia System "Alternative Liquidity Pool Guidelines" can be found in Liquidnet Transparency + Regulatory page under Liquidnet Asia Limited.
Instinet Pacific Limited	BlockMatch Asia "ALP Guidelines" can be found in Instinet's Legal & Regulatory page under APAC – Instinet Pacific Limited section.

7. Supported securities

Securities listed on the SEHK.

8. Crossing sessions

a. The Crossing Engine will operate during the continuous trading hours of the SEHK. The Crossing Engine will not operate during the pre-open session, during the lunch break, or any period that is not deemed as continuous trading by the SEHK.

b. The Crossing Engine will cease crossing orders fifteen seconds before the close of the morning continuous trading session, and fifteen seconds before the close of the afternoon continuous trading session to allow the Crossing Engine sufficient time to report any crossed trades to the SEHK before the session closes. The Crossing Engine will not start crossing orders until fifteen seconds after each session opens to avoid the volatility that is common at the exchange open. These time-periods may be changed from time to time by CLSA.

c. The table below details the operation of the Crossing Engine during the various SEHK trading sessions. Orders received outside of continuous trading session, if they pass the Crossing Engine Validation Module, will be held in the Crossing Engine Internal Order Book.

SEHK Session	Time	Crossing Engine Operation
Before Pre-opening	Before 09:00	Will not cross
Pre-opening	09:00 – 09:30	Will not cross
Before Morning Continuous Trading Session	09:30 – 09:30:15	Will not cross
Morning Continuous Trading Session	09:30 – 12:00	Crossing permitted from 09:30:15 – 11:59:45

SEHK Session	Time	Crossing Engine Operation
Lunch Break	12:00 – 13:00	Will not cross and will not cancel from SEHK
Before Afternon Continuous Trading Session	13:00 – 13:00:15	Will not cross
Afternoon Continuous Trading Session	13:00 – 16:00	Crossing permitted from 13:00:15 – 15:59:45
Market close	After 16:00	Will not cross

9. Order Routing and Execution Methodology

   a. Orders from user or ALP usermay route to Crossing Engine or 3rd party ALPs or SEHK via CLSA order management and execution system as per their instructions. .
   b. CLSA Smart Order Router (SOR) has the functionalityto allow user and ALP users to opt-out from crossing in as per order basis via FIX Tag Crossing Indicator "0 – Do not cross".

10. Table 2 – FIX Tag Crossing Indicators which are applicable to Crossing Engine and 3rd Party ALP which supports such FIX functionality:

FIX Tag Crossing Indicator	Name	Description
0	Do Not Cross	Orders can only be traded on the SEHK, route orders directly to the SEHK
1	Can Cross	The order may be crossed in Crossing Engine or 3rd party ALPs or be routed to the SEHK, depending on the match opportunity.
2	Cross Only	Route order to the Crossing Engine or 3rd party ALPs only. The order will not be routed to the SEHK under any circumstances for execution. Order will be rejected if client is not opted in for he Crossing Engineor 3rd party ALPs.
3	Cross Mid	The order may be crossed in the Crossing Engine or 3rd party ALPs or be routed to the SEHK. If crossed in the Crossing Engine or 3rd party ALPs, the order crossing price will be the mid-point between the best bid and the best ask prices, or better, if that price is within the limit price of the SEHK.
4	Cross Mid Internal	Route the order to the Crossing Engine or 3rd party ALPs only. The order will not be routed to the SEHK under any circumstances for execution. Crossing price will be the mid-point between the best bid and the best ask prices, or better, if that price is within the limit price of the SEHK.
6	Near Touch	The order may be crossed in the Crossing Engine or 3rd party ALPs or be routed to the SEHK. If crossed in the Crossing Engine or 3rd party ALPs, the order crossing price will be the best bid price for a buy order, and the best ask price for a sell order, if that price is within the limit price of the SEHK.
7	Near Touch Internal	Route the order to the Crossing Engine or 3rd party ALPs only. The order will not be routed to the SEHK under any circumstances for execution. Crossing price will be the best bid price for a buy order, and the best ask price for a sell order, if that price is within the limit price of the SEHK.

For electronic trading users and orders, if the FIX Tag Crossing Indicator is omitted from the FIX message and the client has not "opted in", the Crossing Engine and SOR will interpret that as an instruction that the order is not to be considered for crossing. These orders will be routed to the SEHK and will not be stored in the Crossing Engine Internal Order Book, as described for Fix Tag Crossing Indicator type '0' in the table above.

11. Orders Routed to Crossing Engine Prior to the SEHK

Order types 1, 3 and 6 (as described in section B8) are routed to the Crossing Engine first to check for liquidity, if there are no crossing opportunities, the orders are then routed to the SEHK. If there is liquidity in the Crossing Engine but it was insufficient to fill the whole order, the liquidity available in the Crossing Engine would be crossed first and the remaining unfilled order would then be routed to the SEHK. However, any unfilled portions of the order in both cases will continue to be available tobe crossed in both the Crossing Engine Internal Order Book and SEHK. Please see below illustrations for details.

Illustration 1 – No crossing opportunities in Crossing Engine

1. 10:15 am HKT – Prior to order receipt

Crossing Engine Internal Order Book			
Price	Volume ('000)	Price	Volume ('000)
Bid		Ask	
$30.00	20	$30.10	80
$29.95	90	$30.15	70

SEHK Order Book			
Price	Volume ('000)	Price	Volume ('000)
Bid		Ask	
$30.00	40	$30.10	20
$29.95	50	$30.15	30

2. 10:16 am HKT – Sell order of 150,000 shares @ HKD 30.05 is routed to the Crossing Engine with FIX Tag Crossing Indicator = 1

No crossing opportunities available and hence order remains in the Crossing Engine Internal Order Book.

Crossing Engine Internal Order Book			
Price	Volume ('000)	Price	Volume ('000)
Bid		Ask	
$30.00	20	$30.05	150
$29.95	90	$30.10	80

Order is also routed to the SEHK

SEHK Order Book			
Price	Volume ('000)	Price	Volume ('000)
Bid		Ask	
$29.95	40	$30.05	150
$29.90	50	$30.10	20

Illustration 2 – Partial crossing opportunities in Crossing Engine

1. 10:15 am HKT – Prior to order receipt

Crossing Engine Internal Order Book			
Price	Volume ('000)	Price	Volume ('000)
Bid		Ask	
$30.00	20	$30.10	80
$29.95	90	$30.15	70

SEHK Order Book			
Price	Volume ('000)	Price	Volume ('000)
Bid		Ask	
$30.00	40	$30.10	20
$29.95	50	$30.15	30

2. 10:16 am HKT – Sell order of 150,000 shares @ HKD 30.00 is routed to the Crossing Engine with FIX Tag Crossing Indicator = 1

   Only 20,000 shares are crossed in the Crossing Engine. Remaining quantity in the Crossing Engine Internal Order Book is 130,000 shares. This remaining quantity will also be routed to the SEHK for crossing opportunities.

Crossing Engine Internal Order Book			
Price	Volume ('000)	Price	Volume ('000)
Bid		Ask	
$29.95	90	$30.00	130
$29.90	80	$30.10	80

SEHK Order Book			
Price	Volume ('000)	Price	Volume ('000)
Bid		Ask	
$30.00	40	$30.00	130
$29.95	50	$30.10	20

   Remaining quantity are routed to the SEHK

   40,000 shares are crossed in the SEHK. Remaining quantity in the SEHK order book is 90,000 shares. Remaining quantity in the Crossing Engine Internal Book will also be updated. However, order priority remains unchanged.

Crossing Engine Internal Order Book			
Price	Volume ('000)	Price	Volume ('000)
Bid		Ask	
$29.95	20	$30.00	90
$29.90	90	$30.10	80

SEHK Order Book			
Price	Volume ('000)	Price	Volume ('000)
Bid		Ask	
$29.95	50	$30.00	90
$29.90	70	$30.10	20

12. Minimum & Maximum cross size

    a. The FIX message may include an identifier in a FIX Tag to specify the minimum number of shares that may be crossed in the Crossing Engine Internal Order Book. If this identifier is not included then the minimum number of shares will be one board lot.

    b. The Crossing Engine will not cross more than 3000 lots in a single trade or orders in excess of HKD $50,000,000 value. These limits may be changed as necessary by CLSA from time to time.

13. Tick boundary

    a. The Crossing Engine will accept an order that does not align with the SEHK tick boundaries. The Crossing Engine will store orders in the Crossing Engine Internal Order Book with the price limited to at most three decimal places.

    b. Where an order contains a price instruction (i.e., not 'Market' orders), should the price not lie on a SEHK tick boundary and the order cross indicator is set to either "Can Cross", "Cross Mid" or "Near Touch" the price will be rounded to a tick boundary before being sent to the SEHK. Buy orders will be rounded down to the nearest tick boundary, while sell orders will be rounded up. Orders designated "Cross Only" will be held in the Crossing Engine Internal Order Book at the original price limit.

14. Order Crossing Process

    a. The Crossing Engine Internal Order Book is a continuous order crossing system. Order crossing will occur under the following circumstances:

        i. When a new order is received by the Crossing Engine;
        ii. When the limit price of an existing order is amended;
        iii. Where there is a change in the best bid price or best ask price in the SEHK; and
        iv. By the periodic running of a timer.

    b. Orders from different users are continuously executed in price and time priority. An order entered into the system at an earlier time must be executed in full before an order from a different user, at the same price, entered at a later time is executed.

        i. For buy orders, the Crossing Engine will search for a sell order with a limit price lower than or equal to the limit price of the buy order. The search is conducted such that the lowest priced sell orders are checked first. If a sell order is found then the two orders may cross subject to further restrictions outlined in Section C below. The number of shares that may cross will be the lower of either the unfilled quantity of the buy order, or the quantity of the available sell order.

        ii. For sell orders, the Crossing Engine will search for a buy order with a limit price higher than or equal to the limit price of the sell order. The search is conducted such that the highest priced buy orders are checked first. If a buy order is found then the two orders may cross subject to further restrictions outlined in Section C below. The number of shares that may cross will be lower of either the unfilled quantity of the sell order, or the quantity of the available buy order.

    c. The Crossing Engine will only cross orders at a price between the current best bid and best offer price on the SEHK.

    d. The Crossing Engine will only cross orders at a price between the current day high and day low prices on the SEHK.

    e. When the Crossing Engine has determined that two orders may be potentially crossed, the cross is then subject to a series of validations rules, as defined in Section C below. Should any one of the validation rules fail, then a cross will not be performed.

    f. When a cross is validated, if the order has been onward routed to the SEHK, the Crossing Engine will cancel the crossed quantity from the SEHK, either amending the quantity on the SEHK or cancelling the order in full on the SEHK.

g. After all validation checks are performed and, if applicable, the corresponding order on SEHK has been cancelled / amended down, the Crossing Engine will then report the crossed transaction to the SEHK and the client.

15. Order cancellation

Users may cancel orders by sending a FIX cancel message. Orders, which have been routed in whole or in part to the SEHK and are cancelled during periods that the SEHK does not support cancellation, will then be cancelled when the SEHK reopens.

C. Crossing Restrictions

The Crossing Engine operates the following restrictions reflecting the trading rules of SEHK or other regulatory considerations:

a. The Crossing Engine will not cross short sell orders.

b. The Crossing Engine will not cross any instrument that is suspended from trading on the SEHK.

c. The Crossing Engine will not cross odd lots.

d. The crossing price will not have more than 3 decimal places.

e. The Crossing Engine will not cross buy and sell orders from the same client.

f. Other restrictions as deemed to be appropriate by CLSA from time to time.

D. Order Priority

1. Orders from different users are continuously executed in price and time priority. An order entered into the system at an earlier time must be executed in full before an order at the same price entered at a later time is executed except for the case as described in D3 below.

2. Agency Flow vs CLSA Principal Flow

If there are orders, with the same order price, from both Agency Flow and CLSA Principal Flow in the Crossing Engine Internal Order Book at the same time, the Agency Flow orders will have priority over CLSA Principal Flow orders irrespective of the time that they were sent to the Crossing Engine.

3. Consecutive User Agency Order Priority

Where multiple agency orders queue in the Crossing Engine Internal Order Book *consecutively from the same user*:

a. Orders that were not sent to the exchange (as described in section B7, types 2, 4 and 7) will be given a higher time priority relative to orders that were sent to the exchange (as described in section B7, types 1, 3 and 6).

b. Orders that were sent to the exchange (as described in section B7, types 1, 3 and 6) will be considered for crossing in reverse time priority when such crossing order results in an improved queue priority on the SEHK for the user.

This order priority only applies to orders from the same user, in the Crossing Engine Internal Order Book consecutively, at the same price.

E. Other Dealing Matters

1. Order aggregation

Orders within the Crossing Engine will not be aggregated with any other orders for crossing.

2. Fair and orderly operation

   CLSA aims to provide a fair and orderly platform for operation of the Crossing Engine:

   a. The Crossing Engine is an automated order crossing system, free of human intervention under normal operation;

   b. A "Price Time Priority" methodology is imposed upon all users trading in the Crossing Engine with the exception of consecutive orders from the same user as described in Section D2; and

3. The Crossing Engine is subject to CLSA group policies relating to information technology and regulatory compliance.

4. Potential conflict of interest

   CLSA has implemented a broad set of control measures addressing potential conflict of interests in the Crossing Engine.

F. Order confidentiality

The Crossing Engine does not publish indication of interest or any information regarding its order book to any CLSA trading desk or other market participant. In addition the Crossing Engine provides users an option to hold an order within its own internal order book only, and not forward that order to the SEHK.

G. Access to trading information of the Crossing Engine

1. Identity of CLSA staff having ***full access*** to the trading information of the Crossing Engine and the Crossing Engine Internal Order Book in their normal course of duties:

Department	Function	Number of staff	Reason for access
Equity Trading and Execution	Front Office Technology	13 approx.	IT Technical Support

Department	Function	Number of staff	Reason for access
Equity Trading and Execution	Execution Quant Group	5 approx.	Execution analysis and system design

2. The CLSA staff below, in the normal course of business, have information with respect to their client orders which is available from the Order Management System i.e. order status and execution result for client reporting purpose. They have no view access of any trading information in the Crossing Engine and or of the Crossing Engine Internal Order Book.

   "High Touch" or "Cash Business"

Department	Title	Number of staff	Reason
Equity Trading and Execution	Dealers	2	High touch client order execution management
	Sales Traders	15 approx.	

   "Low Touch" or "Electronic Trading Business"

Department	Title	Number of staff	Reason
Equity Trading and Execution	Algo Traders	10 approx.	Low touch client order execution management

   When an order has been routed to the Crossing Engine Internal Order Book but has not yet been crossed, the following information is available:

- Name of Security
- Buy or Sell order
- The number of shares which has been routed to the Crossing Engine Internal Order Book
- The Price at which the order is queuing in the Crossing Engine Internal Order Book

When the order has been crossed in the Crossing Engine Internal Order Book

- Name of Security
- Number of shares crossed
- Price at which the shares were crossed

H. Risk disclosure relating to the Use of Crossing Engine

1. On occasion there may be a time delay before the best bid and best ask price of the SEHK is reflected in the Crossing Engine, due to technology or communication delay or interruption related to market data or otherwise. In such an event the price crossed in the Crossing Engine may not reflect the market price in the SEHK.

2. Where users specify "Cross Only" as the crossing identifier, there is no assurance given with regards to the liquidity of orders in the Crossing Engine. The liquidity of the Crossing Engine may be less favorable than the same in the SEHK.

3. CLSA have taken reasonable steps to protect the integrity and confidentiality of orders in the Crossing Engine to a level we consider appropriate, however leakage of trading information may occur beyond our reasonable level of system and internal control.

4. The service of Crossing engine is provided on an "as is" basis and we make no warranty, representation or other assurance in connection with the system, including as to availability, accuracy, completeness, results, functionality, reliability, performance, timeliness, non-infringement, suitability, quality, merchantability, fitness for a particular purpose or otherwise. We also do not warrant that access and/or use of the system will be uninterrupted or error-free.

I. Legal Information

1. This document is not intended to have any force of law, be it in contract or tort. This document also does not seek to introduce, and should not be seen as imposing, any obligation or liabilities between you and CLSA beyond those defined in our terms of business or contractual agreement.

2. This document/communication is for information purposes only and does not constitute any recommendation, representation or warranty in respect of the Crossing Engine or 3rd party ALPs. This is not a solicitation or an offer to buy or sell any financial products or services. This document/communication is not intended to provide professional, investment, technical or any other type of advice or recommendation. Before acting on any information in this document/communication, you should consider whether the Crossing Engine or 3rd party ALPs described herein is suitable for your particular circumstances and, if appropriate, seek professional advice.

Version control:
V1.2 (Aug 2013), V1.4 (Nov 2015 and Nov 2017), V1.5 (Jun 2018), V1.6 (Oct 2018), V1.61 (Jan 2019), V1.7 (Mar 2019), V1.8 (Oct 2022), V1.9 (May 2023), V1.91(Aug 2024), V1.92 (Mar 2026)