



Skytra MTF Service Description

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Disclaimer

Skytra Limited is currently applying to the UK FCA for registration to act as a benchmark administrator and authorisation as an Investment Firm operating as a Multilateral Trading Facility. Skytra Limited is a wholly-owned subsidiary of Airbus, and is a company incorporated in England and Wales under registered number 11984828.

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1. Introduction

1.1. About Skytra

Skytra Ltd. (**Skytra**) is a wholly owned subsidiary of Airbus SE, which operates two regulated businesses; Skytra Benchmark Administrator (**BA**) and Skytra Multilateral Trading Facility (**MTF**). The Skytra MTF trading platform provides a regulated trading venue for the trading of futures and options on a series of proprietary indices designed to support the airline industry and provide financial market participants with a new asset class and associated trading opportunities.

Skytra has entered the exchange space to provide innovative products and services that offer regulated, cost-effective access to electronic order books, Request For Quote (**RFQ**) and **Process Trade** services, that are centrally cleared. Skytra's trading **Participants** will receive world-class support including real-time monitoring of latency, trading activity, network connectivity and risk management.

1.2. Key Features and Benefits

The ability to trade futures and options contracts on a series of unique benchmarks designed to help manage the material revenue volatility risk, resident in a large underlying market.

Skytra's cash settled futures and options contracts use standard contract specifications which are already well known and understood by the industry.

Skytra has partnered with a leading provider of central counterparty clearing services (**CCP**). Skytra's market model supports clearing of all trades entered into under Skytra's Rules.

Market leading technology, Skytra uses NASDAQ trading, surveillance and reporting systems, used by over 100 financial market infrastructure customers worldwide.

Skytra MTF and Skytra BA are applying for regulatory approval from the FCA and aim to be compliant with all relevant regulations including MiFID II and MiFIR.

1.3. Enquiries

Any enquiries related to the market operations or trading functionality of the Skytra MTF can be addressed to tradingoperations@skytra.com.

Any enquiries related to Skytra's contractual arrangements e.g. Rules, Participant Agreements etc. can be addressed to compliance@skytra.com.

Any general, data licensing, membership and fee related enquiries can be addressed to information@skytra.com.



2. Service Description

2.1. Service Overview

The Skytra MTF provides continuous trading, auction, RFQ and Process Trade services. Skytra has not sought to introduce new features to its trading environment, rather it has deliberately selected industry standard technology that can support the full range of features e.g. trading, reporting, connectivity, that are familiar to Skytra's Participants.

Whilst capable of trading a broad range of derivative instruments, Skytra's initial focus will be on standardised cash settled futures and options contracts on a series of Skytra Indices.

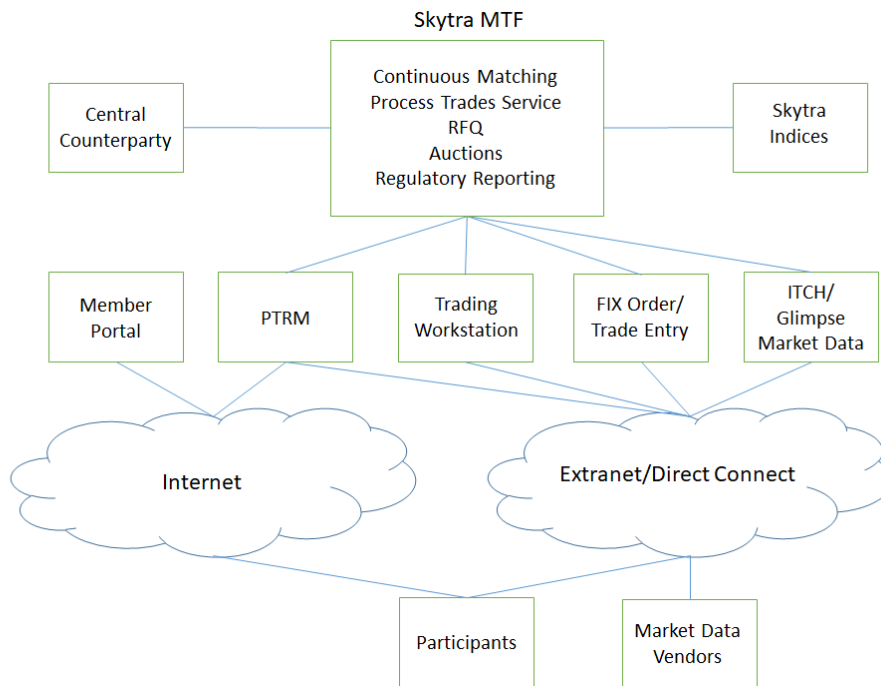
Skytra Indices

Skytra BA compiles and manages its indices (**Price Indices**) under its index Rules and Methodology which are published on Skytra's website, www.skytra.com. In relation to Skytra's Price Indices, Skytra uses data from leading industry sources that cover over 80% of worldwide ticket transactions by value. Skytra BA is an FCA registered Benchmark Administrator under the EU Benchmarks Regulation (**BMR**), externally governed by an **Index Oversight Committee** involving independent representatives from both the financial and air transport industries.

Skytra MTF

The Skytra MTF uses industry standard protocols to support; order book and auction trading, RFQ, trade reporting of off book on-exchange Process Trades in Skytra contracts, central counterparty clearing, trade publication and full depth market data. Low cost workstation access and pre-trade risk control management are available. Web based access is also available to support administrative and reporting requirements, as well as access to Skytra's RFQ and Process Trade services, monitored and managed by a Skytra Trading Operations team that support all technical and market queries.

2.2. System Overview



2.3. Indices

The Skytra BA produces a family of Skytra Price Indices that cover the major air travel regions around the world. These indices use a unit of value that represents the price a passenger would pay in USD for each kilometre flown (a revenue passenger kilometre), this USD/RPK figure, is referred to as “yield” (or “price”) in the airline industry. These indices form the basis for the settlement price at expiry of Skytra’s futures and options contracts. Full details can be found here www.skytra.com/indices, with the primary regions being Asia-Pacific, North America and Europe.

Skytra will, at outset, make available for trading derivatives on the following six Skytra Price Indices:

- Asia-Pacific / Asia-Pacific
- Europe / Europe
- North America / North America
- Asia-Pacific / Europe
- Asia-Pacific / North America
- Europe / North America

Over time, Skytra will introduce additional indices that include other global regions.

2.4. Instruments

Where the Skytra MTF admits to trading derivatives on the Skytra Price Indices, it will make available for each index:



- futures contracts for the next 8 quarterly delivery months and the three immediate serial delivery months, and
- put and call options on each futures contract, with 10 option strike prices around an “At The Money” strike.

Skytra's derivative contract terms can be found in Appendix 1, and provide further details including the tick size, multiplier, strike price increments and EDSP mechanism. Subject to customer demand Skytra may add further delivery months, any such changes will be advised by a **Skytra Notice**.

Certain strategy orders are already configured within the trading system e.g. calendar spreads in the same series. Participants can also dynamically create strategy order books that are not pre-configured. These would then be made available through to the end of the trading day, to other Participants to trade against.

2.5. Trading Sessions

The Skytra MTF trading day is split into a trading schedule for each instrument which is managed using trading sessions. All instruments will be able to trade in all active trading sessions, the default trading schedule for which is configured as per the following table:

Trading Session	Start Time (UK)	Properties
Process Trade Service	08:00	Reporting of Process Trades is enabled. Order and quote entry disabled - execution not supported.
Opening Auction	08:20	Orders and quotes are allowed and can be updated or cancelled. Execution model is No-Matching. Indicative Uncrossing price is calculated and published. Uncrossing occurs within a 30 second random end to the period.
Continuous Matching and Request for Quote Service	08:30	The Opening Price is established and is published. Orders and quotes are allowed and can be updated or cancelled. Execution model is Continuous Matching. Request For Quote Service is enabled.
Closing Auction	16:20	New orders and quotes are allowed and can be updated or cancelled. Execution model is No-Matching. Indicative Uncrossing price is calculated and published. Uncrossing occurs within a 30 second random end to the period. Request For Quote Service is disabled.
Process Trade Service Only	16:30	The Closing Price is established and published. All existing orders and quotes are deleted. Order and quote entry is disabled - execution no longer supported.
End of Trading	17:00	Reporting of Process Trades disabled.

Trading sessions are disseminated over the market data feed, ITCH, in advance of market open and at the time of transition.

Temporary Override Sessions

An instrument can be placed into a temporary override session if either of the following events occur:

- the last traded price breaches a static or dynamic circuit breaker which puts the instrument into an auction; or
- the instrument is suspended or halted from trading by Skytra Trading Operations.

A temporary override session places the instrument in a session which deviates from the default trading session. An instrument may stay in the override session for the remainder of the trading day or revert to the default session depending on the reason for the override or the time that the override is initiated. Updated session information is disseminated over the market data feed, ITC, immediately at the time of initiation and in advance of reversion to the default schedule.

Temporary override sessions support all functionality available in the default trading sessions but will usually follow these rules:

Name	Duration	Properties
Circuit Breaker	10 Minutes	New orders and quotes are allowed and can be updated or cancelled. Execution model is No-Matching. Indicative Uncrossing price is calculated and published.
Suspended or Halted	Unlimited	Existing orders and quotes can be removed but cannot be modified. New orders and quotes are rejected. Execution model is No-Matching. Request For Quote functionality is disabled. Reporting of Process Trades disabled.

2.6. Execution Modes

The Skytra MTF supports different execution models to allow for on and off order-book trading and reporting of “off-book, on-exchange” transactions, in order that they can be presented to the CCP for clearing and to ensure they meet their regulatory reporting requirements. This includes the electronic trading systems for Continuous Matching and RFQ.

Continuous Matching

During Continuous Matching incoming (aggressive) orders and quotes are compared to existing (passive) orders resident in the order book and match on a price/time priority basis. Incoming orders and quotes are, from a trading perspective, always considered as aggressive orders. Trades will always arise at the Best Bid and Offer (BBO) but the order itself may trade through more than one price level if, in order to complete the order, it needs to trade at higher (buyer) or lower (seller) levels. Time in Force conditions are used by Participants to specify the specific attributes of an order or quote on entry. For example, if the Time in Force condition is defined to retain the order or quote on the order book, any remaining part of the order or the whole order, if no matching has occurred, will be stored as passive.



Request For Quote

The Request for Quote (RFQ) service allows an initiating Participant (Initiator) to send a quote request to all Participants, unless the Participant has elected not to participate in RFQs. Participants then respond (Respondent) with a quote for all of the Initiator's request. An RFQ is time limited and whilst the Initiator may receive multiple responses in the time period, only one response can be accepted. Once a response is accepted the trade is matched immediately and published, subject to any eligible deferred reporting regime. RFQ functionality includes size validation rules and imposes on the Participant the requirement to trade at a fair and reasonable price, but otherwise operates independently. Skytra MTF's RFQ Service Description can be found [here](#)

Off Order Book Trades / Process Trading Service

Off order-book trades are supported using the Process Trades service which validates pre-negotiated matched trades using a two sided trade report facility. Once reported, validated and matched, trades are considered to have been executed on Skytra, and are published subject to any eligible deferred reporting regime and can only be cancelled by Skytra Trading Operations. Skytra MTF's Process Trade Service Description can be found [here](#)

No-Matching

Orders and quotes are accepted and allowed to "cross" without any matching occurring. The no-matching execution model can be used for trading sessions such as pre-open and reopening suspended or halted contracts, and is used during an auction phase where an Indicative Uncrossing Price will be calculated and published up until the point of uncrossing when the firm uncrossing price will be calculated and published.

Auction

Auctions collect interest (orders and quotes) on both sides of the order book for a period of time and then execute all matching interest at a single price (the uncrossing price) that maximises the executable quantity and minimises the surplus. Auctions are used for opening and closing markets but can also be configured for intraday auction periods. The uncrossing price is determined in the following order:

- 1) **Maximise Executed Quantity** - use the price at which the most quantity will be executed..
- 2) **Minimise Surplus Quantity** - if more than one price, then select the price with lowest imbalance.
- 3) **Let Market Pressure decide** - if more than one price with lowest imbalance, choose the best price from the side of the book where the largest surplus resides.
- 4) **Choose Price Closest to the Reference Price** - if more than one price, select the price closest to the Reference Price.

Throughout an auction session an indicative uncrossing price is published alongside the quantity available on the bid and ask at the uncrossing price. No other order book data is published. Once



the auction completes and the uncrossing occurs, a single trade message is published with the total volume executed at the uncrossing price.

2.7. Order Types

The following order types are available to all Participants for execution on the platform:

Limit Order – an order submitted with a specified limit price; the order executes either in part or in full against eligible orders at its limit price or better.

Market Order – an unpriced order that will execute against the best priced orders in the order book.

Market Orders are executed at the best available price and are therefore entered without a price. Note that a Market order will trade through the order book until the entire quantity is filled.

Market Orders cannot be stored in the order book during Continuous Matching, and will be cancelled if they are not immediately executed.

When Continuous Matching is in progress any unexecuted balance of market orders will always be cancelled (i.e. they cannot be stored in the order book). Therefore, no Time in Force other than FOK or IOC is accepted for a Market Order in Continuous Matching.

In No-Matching or Auction, Market Orders with Time in Force set to FOK are rejected. Market Orders with Time in Force set to IOC are accepted and stored but always cancelled after the uncross. Market Orders with any other Time in Force other than IOC will be rejected in No-Matching or Auction.

Note that Market Orders will not be converted to Limit Orders after an uncross. The Market-to-Limit order shall be used for this purpose.

Market-to-Limit Order – will execute at the best possible price. If the order is partly matched, the remainder is converted to a Limit Order priced at last match price. In comparison with a normal Market Order, the Market-to-Limit Order only executes at the best price level and therefore does not trade through the order book.

All Time in Force attributes are accepted for Market-to-Limit Orders in Continuous Matching. In No-Matching or Auctions all Time in Force attributes except FOK are allowed for Market-to-Limit Orders.

Market-to-Limit Orders entered in a non-matching session state will participate in the uncross at the uncrossing price and if any quantity remains after the uncross they will be stored in the order book at the uncrossing price.

During a Continuous Matching session state a Market-to-Limit Order is immediately cancelled if no full or partial match can be executed, e.g. if no order exists on the opposite side of the market. Market-to-Limit Orders for a strategy order book will not match with the leg order books. Therefore if no orders exist on the opposite side of the market in the strategy order book, the Market-to-Limit Order in the strategy order book is immediately cancelled, since no match can be executed.



By defining Time in Force to either FOK or IOC in Continuous Matching, the Market-to-Limit Order type can be used to behave as a Market Order that will only match at one price level.

Best Limit Order - will be automatically assigned the best price on the same side of the order book at the time the order is registered. No price is therefore required. The order is rejected if no order on the same side is available in the order book.

During non-matching phases, e.g. Pre-Opening and Pre-Closing phases, the bid and offer prices in an order book may be overlapping, however a Best Limit Order is still assigned the current best price on the same side.

Once in the order book, the order price is never recalculated even if a better-priced order is entered.

Iceberg – includes an executable quantity that is only partially visible to the market. The quantity is automatically refreshed from a hidden quantity once the displayed quantity is fully executed. Refreshing the quantity is regarded as a new order from a time priority point of view, however, an incoming aggressive order will not trade through to the next price level until all of the displayed and hidden quantities available are executed (to offer incoming orders the best available executions).

In auctions, Iceberg Orders participate with their total quantity in the uncrossing price calculation.

The Participant specifies the hidden quantity which cannot be larger than 90% of the shown quantity. The Iceberg order must meet the prevailing value threshold as per MiFID II

At Open/Close – an order submitted with or without a limit price which will participate in either the Opening or Closing auction, depending on the session specified as a trigger condition. Any unfilled balance after the uncrossing will be cancelled. A hidden quantity can be specified which will be included in the Indicative Uncrossing price.

Stop Order – an order submitted with a specified limit price as a trigger condition. Stop orders are only active in the order book once their trigger condition has been met.

2.8. Time In Force

The following Time In Force attributes can be applied to all orders:

Day – an order that is valid until the end of the current trading day only, when any unfilled part of the order is automatically cancelled.

Good Till Cancelled (GTC) – an order that remains in effect, for the same trading day, until it is executed or cancelled.

Date (GTD) – an order that is valid until a specific time and date. Where an order is specified with a future date it is treated as a Day order.

Good Till Session (GTS) – an order that is valid until the end of the specified session state type. Where a session state type is specified that has already ended, the order will be active until the next instance of the session state type or the end of the trading day whichever is soonest.



Fill or Kill (FOK) – the order is cancelled immediately if there is insufficient quantity to execute it in its entirety on receipt.

Immediate or Cancel (IOC) – a.k.a. Fill and Kill, the order is to be executed immediately or not at all. Unlike the Fill or Kill order, a partial execution of the quantity is allowed

Under Skytra's Rules, all orders resident in the order books at the close of trading will be cancelled, and will not be automatically reintroduced to the order books at the start of the following trading day.

The following matrix identifies the allowable Time in Force values per order type in Continuous Matching:

Time In Force						
Order Type	FoK	IoC	Day	GTC	GTD	GTS
Limit	x	x	x	x	x	x
Market	x	x				
Market to Limit	x	x	x	x	x	x
Best Limit Orders			x	x	x	x
Iceberg			x	x	x	x

2.9. Order Priority

Order priority (i.e. the ranking of an order in the order book) is determined according to price and time-of-entry. This priority persists for the life of the order unless the order is amended at which point it may lose priority. The rules for when an order will lose priority are detailed in the table below:

Order Action	Keep Priority	Lose Priority
Shown Quantity Decrease (Iceberg orders)	√	
Quantity Decrease for non-Iceberg orders	√	
Shown (and total) Quantity Decrease for Iceberg order where Shown = Total (i.e. no hidden left)	√	
Hidden Quantity Decrease (Iceberg orders)	√	
Shown Quantity Increase (Iceberg orders)		√
Hidden Quantity Increase (Iceberg orders)		√



2.10. Trigger Conditions

Trigger conditions can be applied to orders so they are automatically activated based on specified and selected criteria. Once the order is activated it becomes visible in the order book and is validated and treated as if entered as a normal order.

Orders with trigger conditions have the following attributes:

- can be triggered on price changes or session changes (Stop, At Open or At Close orders).
- validated once triggered, not on initial entry, so may be rejected on trigger.
- remain inactive until the trigger condition has been met.
- are not included in Best Bid and Offer ("BBO") calculations until activated and visible on the book.
- time priority is determined by the time the order is triggered and then by the time of initial entry.
- only participate in auction uncrossing if configured for that session.
- only one trigger condition is allowed per order.

At order entry, validations are performed such as price tick check, quantity etc. However order attributes connected to Sessions are not validated. For example, it is possible to enter a trigger Market Order in a session that does not support Market Orders. If the order is triggered during this session it will be rejected.

2.11. Strategy Orders

The Skytra MTF supports calendar spread orders for all instruments in the same series. The Skytra MTF also supports the creation by Participants of tailor made strategy orders.

The Skytra MTF supports the market's ability to execute strategy trades in two ways. First, a strategy order can match against another strategy order in the strategy's own specific order book. This includes the standard strategy orders presented and supported by Skytra as well as Participants' own tailor made strategy orders.

Second, the underlying legs of the strategy order can execute against the individual instrument's orders in their respective order books, as long as the combination of these instrument orders can fill the profile of the strategy order. Where a strategy order can be executed via either approach, time/price priority will apply.

A strategy order cannot have hidden volume nor use trigger conditions but can use all the available Time In Force attributes.

2.12. Implied Orders

Implied orders are automatic orders generated by Skytra for the purpose of trading strategies. Implied orders are calculated from those orders residing in the individual legs of a strategy order and are inserted into the single order book legs. Implied orders advertise the liquidity available in the marketplace due to the strategy orders, and increase the possibility of execution of these orders. Implied orders are only generated during Continuous Matching and are generated at all



price levels. Whilst a strategy order may generate single implied orders, orders resident in the order book will not be used to generate implied orders in a strategy order book.

2.13. Quotes

The Skytra MTF's quoting functionality provides an efficient mechanism for all Participants, especially Market Makers, to input and update prices on multiple instruments simultaneously and quickly ("**Mass Quote**"). Quotes are similar to normal orders, but with the following additional characteristics:

- Quotes can be single-sided or two-sided, i.e. both the bid and ask side can be provided in one message.
- A previous quote can be replaced by a new quote in the same order book (where only one side is replaced, the other side retains its priority).
- If one or more quotes specified within the Mass Quote are rejected, then the remaining quotes will be processed by the matching engine. A response message with corresponding error codes for each rejected quote will then be returned.
- Quotes cannot be used for strategy orders.

Quotes are firm, and will automatically be matched when executable against resident orders, new orders entering the order book and other quotes. If a quote does not match on entry it will become a passive order. All orders can be amended with Mass Quote functionality regardless of the original method of entry. Up to 15 two sided quotes can be updated in one Mass Quote transmission.

2.14. Reference Price

Skytra maintains a Reference Price to calculate price control limits, limits for circuit breakers, leg prices for strategy order execution and Auction Uncrossing Price calculation.

The Reference Price is derived from the most recent of the following possible values:

- Last Traded Price
- Last Auction Price
- Opening Price
- Closing Price

A Reference Price manually input by Skytra Trading Operations will take priority over all of the above values if it is the latest price available.

Skytra's Closing Price, derived from activity in the underlying Contract during the day, may form Skytra's Opening Price in the same Contract the following day where there has been no trade in the opening auction. However, under such circumstances, Skytra may choose to publish the previous day's Settlement Price, calculated and used by the CCP, as its Opening Price should it consider this price to better reflect the price of the underlying Contract.

2.15. Trades

Trades can originate from an auction uncross, a Continuous Matching session, a matched Request For Quote (RFQ), or from off-book / on-exchange Process Trades.

Continuous Matching - each match of an aggressive order against a passive order will generate a trade which will be published immediately.

Auction uncrossing - the cumulative volume of the match of the orders at the firm uncrossing price will be included in one trade report which will be published immediately after the Auction closes.

Process Trades (off-book / on-exchange trades) - Process Trade reports are submitted by the Participant, or if between two Participants the seller counterparty, and validated according to the Process Trades Service rules. On successful validation, the trade will be published following any allowable delay or immediately if the Participant elects for immediate publication.

Request for Quote (RFQ) - all trades matched under the RFQ Service will be published following any allowable delay or immediately if the Participant elects for immediate publication.

All trade reports are anonymised and once published all trades can only be cancelled by Skytra.

2.16. Price Controls

In order to regulate prices, the Skytra MTF uses Order Price Limit and Circuit Breaker functionality. The Order Price Limit and the Static Circuit Breaker use the Reference Price and the Dynamic Circuit Breaker uses the last traded price. Circuit Breakers and Order Price Limits are not applied during auctions.

Order Price Limit

Order Price Limit Functionality will reject orders that exceed upper or lower price limits away from the Reference Price. Order Price Limits ensure that orders that are significantly mispriced cannot be entered into the order book regardless of whether they will execute on entry or not. Order Price Limits do not apply to Strategy orders.

Dynamic Circuit Breaker

The Dynamic Circuit Breaker is triggered if an order executes at a defined percentage away from the Last Traded Price and is used to protect against excessive price movements between sequential trades. The Last Traded Price can be derived from Continuous Matching or an auction uncross such as the Opening Auction. If the Dynamic Circuit Breaker is triggered, the executed order that triggered the Dynamic Circuit Breaker will be registered and the order book will enter into an auction phase in a Temporary Override Session. Any uncrossing price from the auction will become the Last Traded Price.

Executable orders will execute up to the point at which the circuit breaker is triggered (i.e. partial executions of incoming orders may happen).



Static Circuit Breaker Price

The Static Circuit Breaker is triggered if an order executes at a defined percentage away from the Reference Price and is used to protect against excessive price movement over the trading day. If the Static Circuit Breaker is triggered the order book will enter into an auction phase in a Temporary Override Session. Any uncrossing price from the auction will become the new Reference Price.

Executable orders will execute up to the point at which the circuit breaker is triggered (i.e. partial executions of incoming orders will happen).

2.17. Pre-Trade Risk Management

Skytra MTF's Pre Trade Risk Management (“**PTRM**”) functionality provides Participants and Clearing Members with the ability to define, monitor and enforce various risk limits in relation to the order and trading activity of their own trading members and, in the case of General Clearing Members their clients, that have direct access to Skytra's order books, RFQ Service and Process Trades Service. Skytra provides its Participants with such risk management via its PTRM service.

The PTRM service allows users to define their own risk groups. A risk group is composed of one or more traders or accounts. All orders and trades submitted by a trader in a risk group are subject to the risk checks defined for the risk group. The risk limits are set at the Product level for each risk group.

Skytra MTF's PTRM service provides the following risk control parameters:

Risk Limit	Description
Max Order Size	Max allowed quantity for an order
Max Order Value	Max allowed order value (order price x quantity)
Price Deviation	Max allowed % deviation from the reference price
Order Rate	Max # orders/sec allowed for the risk group, aggregated across all members of the risk group
Open Buy/Sell	Max quantity of open contracts on the buy and/or sell side
Traded Bought/Sold	Max quantity of traded contracts on the buy and/or sell side
Traded Net	Max quantity of absolute value of (traded bought – traded sold) contracts
Total Buy/Sell	Max quantity of Open Buy + Traded Bought (and/or Open Sell + Traded Sold) contracts
Total Net Buy/Sell	Max quantity of absolute value of (Total Buy – Total Sell)
Restricted Instruments	If flagged within PTRM as True, members of the risk group cannot submit orders or trades for any instruments that do not have risk limits defined. If flagged as False, members of the risk group can submit

	orders and trades in any instrument regardless of whether risk limits are defined or not.
Max Open	Max # of open orders for the risk group
Total Traded	Total traded across all products by the users in the risk group within configurable time window

Risk limits are set at the Instrument Type or Instrument Class level. For example, the same Open Buy limit would apply to all Instruments in an Instrument Class (or Instrument Type).

Pre-trade limits can also be set at an account level which is separate to the Participant/User hierarchy of the trading system (see section 4.5 below). Skytra's PTRM service also provides risk group functionality which allows for risk checks to be applied across multiple users and accounts.

2.18. Daily Settlement Price and Exchange Delivery Settlement Price

The Daily Settlement Price will be the price set by the CCP against which positions will be marked to market at the close.

The Exchange Delivery Settlement Price (EDSP), against which the Skytra contract shall expire, shall be the value of the respective underlying index on the expiry day, as published by Skytra under the contract terms, which can be found in Appendix 1.

2.19. Closing Price

The Skytra Closing Price in any given instrument will be determined using the following logic:

- The price of the last transaction on that day, provided that it is derived in a closing auction or, if not traded in the closing auction, the last trade on the day as long as it is at or within the bid and offer at the close. If neither of these exist,
- The mid-point of the last best bid and offer on the Order Book prior to the auction. If there is no valid bid and offer on the Order Book then the price of the last trade on the day. If there are no trades on the day,
- The Skytra Opening Price is used

In order to ensure Skytra's reference prices reflect the underlying instruments, Skytra will work closely with its CCP and may, in the absence of a trade in the opening auction, adopt the CCP's previous day's settlement price (used to calculate end-of-day variation margin) as its Opening Price on the following business day.

2.20. Rulebook

Trading on the Skytra MTF is conducted under the terms of the Skytra MTF Rulebook which details the operational behaviour of the venue, the responsibilities of market Participants, the procedures in place for managing non-compliance and the responsibilities of the Skytra MTF.



2.21. Market Data

The Skytra MTF broadcasts several levels of data including; open price, close price, daily high and low, trade prices, sizes, and a fully visible, complete tick by tick order book. The different levels are designed to suit the needs of different users. Data is provided on a non-discriminatory basis using a high performance, resilient protocol (ITCH and GLIMPSE) available through multiple connectivity options.

Market By Order

Skytra provides **Market By Order** data to enable recipients to maintain an order book copy in the form of individual orders. The orders are sent out with a ranking position giving the participant the possibility to recreate the exact ranking of orders in the order book. All orders are anonymous but a Participant can identify their own orders using the Order ID which corresponds to the Order ID received in the FIX order entry acknowledgement.

Market By Price

The **Market By Price** data feed provides a lightweight method to build the order book with aggregated data for consumers who do not need to see the individual orders at each price level. The service sends a Bid and Ask Market by Price message that contains the price, the total quantity and number of orders at the price and the position in the order book for the data.

Indicative Uncrossing Price

During auction sessions the **Indicative Uncrossing Price** message is disseminated. These messages provide the uncrossing price at that time, with the quantity at both the bid and offer. No Market By Order data is disseminated during an auction phase.

Trade Ticker

With the exception of Process Trades reported to Skytra and RFQ trades that are eligible for deferred trade reporting, and for which the Participant has not elected to publish immediately, all trades executed on or off the order book are published immediately via the trade ticker. A single trade message is sent for each trade. Trades executed from the auction uncrossing process are disseminated as one aggregated trade. Where a trade occurs on a strategy order book, the trade is printed for the strategy order book and the outright, with a flag to indicate where the orders originated to avoid double counting.

Reference Data

At the start of each trading day, order book directory messages are disseminated for all active instruments. These messages contain all the reference data required to trade the instrument along with display information such as ISIN, Long Name and Symbol. Additional order book directory messages may be disseminated intra-day as new order books are added to the system (e.g. Participant created strategy trades). Messages are also sent to indicate when an instrument changes session i.e. Opening Auction into Continuous Matching.



Opening and Closing Price

The Opening and Closing Prices are the trade price from the Opening and Closing auction, respectively. If there is no price from the Opening Auction the previous day's Closing Price, subject to Section 3.21 above, will be used as the Opening Price and will be published immediately following the opening auction. A Closing Price is determined as per Section 3.21 above and is published between 16:30 and 17:00.

2.22. Services

Skytra provides a number of facilities to provide trading access, publish market data, manage market risk and support regulatory reporting and market administration requirements.

FIX

The Skytra MTF uses FIX 5.0 SP2 as the protocol for order and quote entry, drop copy and for the Process Trades and RFQ Services. Each FIX session is allocated to a resilient server with hot standby on the primary site. Failover is automatic and session states are fully replicated allowing message recovery. A separate server is also allocated for Disaster Recovery at the Standby site.

ITCH

Market and reference data is disseminated using the ITCH protocol. ITCH is a low latency binary protocol which uses a UDP transport with a TCP re-request facility (ITCH Rewind). Both ITCH and ITCH Rewind use the same data formats. Resilience is provided by two ITCH UDP and Rewind services running live on the Primary site together with one running live on the Standby site.

GLIMPSE

As a complement to the ITCH real-time data feed product, GLIMPSE is a point-to-point data feed connection that provides direct data feed customers with the current state of the order books on the Skytra MTF platform. GLIMPSE uses the same data formats as the ITCH data feed product. Resilience is provided by two GLIMPSE services running live on the Primary site together with one running live on the Standby site.

Trading Workstation

Skytra provides a Trading Workstation for clients who do not require direct connectivity via the FIX and ITCH interfaces. The Trading workstation offers extensive market making and order entry capabilities, support for the Skytra RFQ service and PTRS and a data rich front end available over low-cost access via web-based connectivity.



Member Portal

The Member Portal is accessed through a web interface and allows Participants to manage the following processes:

- Membership Data
- Order Record Keeping
- Short Code Upload
- Algorithm Certification

The Member Portal is also the central repository for submitting all service requests to Skytra.

PTRM

Pre Trade Risk Management ("PTRM") is provided using the PTRM application. PTRM is a web based application which allows for pre-trade risk controls across individual users, accounts or risk groups.

3. Operation of Service

3.1. On-boarding

All Participants of the Skytra MTF are required to meet the eligibility criteria defined in the Skytra Rulebook. In addition all Participants are required to complete the following agreements and processes:

Participant Agreement

All Participants must complete the Participant Agreement which defines the contractual obligations required by the Skytra MTF.

Market Data Agreement

The Market Data Agreement details the contractual obligations on the use and dissemination of all market data generated by the Skytra MTF trading platform. The Market Data agreement must be completed by all organisations prior to receiving this data.

Authorised Persons

Before any trading can take place on the Skytra MTF trading platform, all Participants are required to have submitted a list of Authorised Persons. Authorised Persons are the named individuals who authorise actions to be undertaken on behalf of the Participant by Skytra Trading Operations such as order and trade cancellation.



Certification

All systems which connect to the Skytra MTF trading platform must have passed a certification test. Certification testing is supported by Skytra Trading Operations and is designed to ensure the connected systems operate to the necessary specification for the functionality required.

3.2. Connectivity

Access to the Skytra MTF trading platform is through the Nasdaq primary and secondary data centres in Stockholm, Sweden. Connectivity is available through Nasdaq NODE, Nasdaq Express Connect or using direct access providers and extranet providers.

3.3. Service Schedule

The Skytra MTF operates from Monday to Friday except for the following days when the market is closed (Closed-Day):

- New Year's Day (1st January)
- Good Friday
- Easter Monday
- Christmas Day (25th December)
- Boxing Day (26th December)

If a Closed Day is on a weekend, a 'substitute' weekday becomes a Closed Day, normally the following Monday. If Boxing Day falls on a Saturday, the following Monday is a Closed Day. If Christmas Day falls on a Saturday, the following Monday and Tuesday are Closed Days.

All Skytra MTF services are available for connectivity and logon from 06:00 London Time. The ITCH and GLIMPSE market data service will start to send heartbeats at this time.

Standard trading hours are 08:20 to 16:30 London time, with continuous trading starting after the opening auction at 08:30 London time and ending at the start of the closing auction at 16:20. The platform is available from 08:00 to 17:00 London Time for receipt of Process Trades.

The Skytra MTF service closes at 18:00 London time at which point customer connectivity will no longer be available.

3.4. Performance and Capacity

The Skytra MTF platform is built on low latency, high capacity proven technology providing resilient infrastructure, a high degree of systems uptime and availability and seamless failover. The infrastructure has been implemented with sufficient headroom to support a multiplier of the expected order and quote throughput with sub millisecond latency. Continuous capacity management monitoring is in place and in the event of exceptional conditions throttles can be imposed on quote and order entry to maintain performance levels.

3.5. Support

Skytra provides support via the Skytra service desk from 07:00 to 18:00 London Time for the following activities:

- 1st Level support for technical and functional queries
- Market Control activities such as order deletion, trade reporting, user suspension
- Technical client onboarding
- Client certification
- Reference Data Maintenance

All Skytra service desk activities done on behalf of a Participant will only be executed from instruction by a validated Authorised Person.

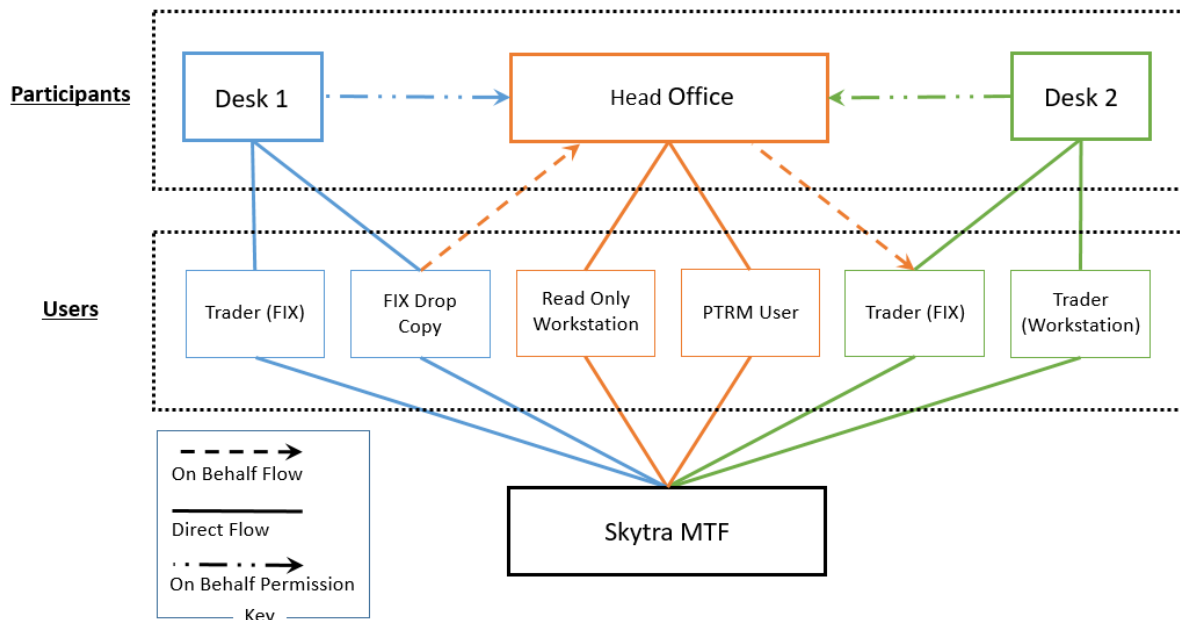
3.6. Participant Hierarchy

The Skytra Participant Hierarchy is as follows:

Level	Description
Participant	Participants are trading firms.
Users	Users are persons or systems who need access to one or more of the systems applications such as the trading platform, RFQ service, Process Trade service, FIX interface, Member Portal or Pre-Trade Risk Management (PTRM).

Within this hierarchy access permissions can be given to one Participant on behalf of another Participant. This allows for a Participant/Desk/User hierarchy using Participants as virtual desks.

The following diagram shows a head office that has two trading desks. The head office receives FIX Drop Copy information on all the trades done by Desk 1 and can enter and delete orders for Desk 2. Desk 1 and Desk 2 have given “On Behalf Of” permission to the Head Office.



3.7. Cancel on Disconnect

The Skytra MTF platform will cancel orders and quotes in scenarios where an erroneous execution could occur. Orders and quotes will be automatically disconnected as a consequence of the following events:

- In a normal user logout
- In a forced user logout
- When a user loses connection to the central system
- As the result of a transition to a session state configured to cancel all orders

Confirmation of cancelled orders is sent immediately to the participant with clear identification that the orders were automatically cancelled by the system. Acknowledgement for orders or quotes cancelled as a consequence of disconnection or logout will be sent on re-connection.

3.8. Clearing

The Skytra MTF sends all trades to Nasdaq Clearing AB in real time. The following parameters are available to Participants to pass through to Nasdaq Clearing AB:

- Account
- Position Effect
- Give Up Name

Please note that the Skytra MTF does not validate these parameters and it is the responsibility of the Participant to ensure that the values of these parameters are correct.

3.9. Regulatory Reporting

Skytra will perform all necessary transparency reporting required under MiFIR (where transparency report-causing events occurred on Skytra venue) and transaction reporting for all non-MiFIR Participants.

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Appendix 1

Skytra Price Index - Futures	
Contract Skytra Futures	Underlying Skytra Price Index
Trading Platform	Skytra Electronic Order Book for Futures and Options
Trading hours	08:30 - 16:30 (pre-open from 08:20)
Unit of trading	Valued at 100,000 RPK per index point (e.g. value €12,340.00 at 12.34c)
Quotation	Index points (e.g. 12.34c)
Minimum price movement (tick size and value)	0.01c = USD 0.0001 (\$10.00)
Delivery months	The three nearest serial months and the eight following quarterly months of the March, June, September, December cycle
Matching Algorithm	Electronic Order Book applies a Price/Time matching algorithm with priority given to the first order at the best price
Daily Settlement Price	The Daily Settlement Price for a delivery month is derived as per Skytra MTF's Rulebook
Last Trading Day	Last Trading Day is the last Thursday in delivery month (in the event of the last Thursday not being a business day, the Last Trading Day shall be the last business day preceding the last Thursday).
Close of Trading	Trading shall cease at 14:00 London time on the Last Trading Day
Exchange Delivery Settlement Price (EDSP)	The value of the Skytra Index is calculated by Skytra with reference to the value of the index as calculated by Skytra on the Last Trading Day N.B. the index will be an average over the previous 28 days
Delivery day	First business day after the Last Trading Day
Settlement	Cash settlement based on the Exchange Delivery Settlement Price
Alternative Trading Facilities	Process Trades, RFQ, Auction
Central Counterparty Clearing	Nasdaq Clearing AB provides the full range of clearing services
Full contract specification and related documentation	Available on http://www.skytra.com/derivatives

Statement in relation to EDSP Formation: Potential users of the Skytra Futures Contract made available on the Skytra MTF should familiarise themselves with the relevant Index Rules and Methodology and calculation procedures, as well as the relevant contract terms.

Whilst the EDSP will be based on the underlying index value calculated as an average over the preceding period, the Skytra Price Index Futures Contract's price is subject to underlying demand and as such, any concentrated activity around expiry might result in a final EDSP that differs from the Index's futures' price immediately prior to the EDSP. Potential users should, therefore, consider the risks of holding positions into the expiry of the Skytra Price Index Futures Contract. In particular, they should consider their exposure to potentially unfavourable price movements in the expiry and whether to take steps to neutralise such exposure; for example, taking into account that there may be relatively limited liquidity provision, whether to "roll" or close positions prior to expiry.

Skytra Price Index - Options (European Style) on Skytra Futures	
Contract	Underlying
Skytra Options	Skytra Price Index
Trading Platform	Skytra Electronic Order Book for Futures and Options
Trading hours	08:30 - 16:30 (pre-open from 08:20)
Unit of trading	Contract Valued at 100,000 RPK per index point (e.g. value €12,340.00 at 12.34)
Quotation	Index points (e.g. 12.34)
Minimum price movement (tick size and value)	0.01c = USD 0.0001 (\$10.00)
Delivery months	The three nearest series months, the eight following quarterly months of the March, June, September, December cycle
Matching Algorithm	Central order book applies a Price/Time matching algorithm with priority given to the first order at the best price
Daily Settlement Price	The Daily Settlement Price for a delivery month is derived as per Skytra MTF's Rulebook
Last Trading Day	Last Trading Day is the last Thursday in delivery month (in the event of the last Thursday not being a business day, the Last Trading Day shall be the last business day preceding the last Thursday)
Close of Trading	Trading shall cease at 14:00 London time on the Last Trading Day
Exchange Delivery Settlement Price (EDSP)	The value of the Skytra Index is calculated by Skytra with reference to the value of the index as calculated by Skytra on the Last Trading Day N.B. the index will be an average over the previous 28 days
Delivery day	First business day after the Last Trading Day
Exercise	European Style Index Options which can only be exercised at expiry on the Last Trading Day of the respective option series. Exercised into the related Skytra Futures automatically if "In-The-Money" at the Close of Trading
Exercise/Strike Prices	Exercise Price Intervals will be every 0.20 Index Points. Upon listing an option at least eleven exercise prices shall be made available for each put and call, such that five exercise prices are in-the-money, one at-the-money and five are out-of-the money
Settlement	Cash settlement based on the Exchange Delivery Settlement Price. Settlement day is the first business day after the Last Trading Day.
Alternative Trading Facilities	Process Trades, RFQ and auction
Central Counterparty Clearing	Nasdaq Clearing AB provides the full range of clearing services
Full contract specification and related documentation	Available on www.skytra.com/derivatives



Version History

Version	Date	Summary of changes
0.1	April 2020	Draft document issued.

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