

EBS Ai on CME Globex

CME Group is implementing EBS Ai on CME Globex (EBS Ai) to facilitate EBS Market Integration. EBS Ai will allow existing EBS customers to transact on CME Globex using EBS Ai over FIX protocol with minimal modifications to their trading and market data solutions.

This topic presents the differences between the **Legacy Ai** protocol and the new **EBS Ai** protocol. For full technical information, please refer to the Ai 2.0.5 FIX Developer's Guide available in the [EBS Support Portal](#).

| Additional Resources |
|--|
| <ul style="list-style-type: none">EBS Ai Message Specification |

Contents

- [Key Customer Events and Dates](#)
- [Revision History](#)
- [Testing and Certification](#)
- [System Architecture](#)
 - [Production Connectivity](#)
- [Summary of Functional Changes from Legacy Ai to EBS Ai](#)
- [EBS Ai Version Compatibility](#)
- [Instruments](#)
- [Market Segments](#)
- [Functionality Overview](#)
- [New and Modified Functionality](#)
 - [Authentication](#)
 - [New Username](#)
 - [Password Change](#)
 - [Self-Match Prevention \(SMP\)](#)
 - [SMP at Trader ID level](#)
 - [SMP at Trader Floor Level](#)
 - [MiFID Short Code](#)
 - [Market View](#)
 - [Price Depth View](#)
 - [Market by Price Depth](#)
 - [Market Data and Trading Subscription](#)
 - [MDLastIncrementalRefresh \(tag 20203\)](#)
 - [Single Subscription Request with Multiple Instruments](#)
 - [3 Subscription Requests with 1 Instrument in Each](#)
 - [Order Amend Request Reject](#)
 - [Application Logoff](#)
 - [Trade Query](#)
 - [Counterparty Trader ID](#)
- [Message-Level Changes](#)
 - [EBS Ai Messaging Inbound/Outbound](#)

Key Customer Events and Dates

In preparing to trade EBS products on CME Globex, customers must be aware of the following implementation milestones.

See the full [New Release and Production launch schedule](#).

Revision History

| Date | Description |
|--------------------|--|
| September 28, 2021 | updated tag 20105-PriceDepthRange description EBS Ai will not support this parameter and will set tag value to 9999 |
| September 21, 2021 | Updated MiFID Short Code topic: Legacy EBS Ai supports alphanumeric short codes. CME Globex supports only numeric short codes. Customers using alphanumeric short codes must re-register on the NEX Upload Facility (NUF) with numeric short codes. |
| August 19, 2021 | Updated Counterparty Trader ID section - Counterparty Trader ID will no longer be provided. |

| | |
|---------------|--|
| July 25, 2021 | EBS Ai Interrupt All Request - added tag 11-CIOrdId EBS Ai Trade Capture Report Request - updated tag 11-CIOrdId description EBS Ai Order Interrupt Request - updated tag 35-MsgType enumeration to 'F'; EBS Ai Order Amend Request - removed tags 336, 1084, 20405 |
| July 16, 2021 | EBS Ai on CME Globex - Updated tag 5977 description for EBS Ai Application Logon Request EBS Ai Standard Header - Updated tag 56 description EBS Ai Session Logon Request and Response - Updated 108 and 1137 descriptions |
| July 15, 2021 | Updated key Events and Dates |
| June 17, 2021 | EBS Ai Trading Session List updated tag 342 description |
| 6/16/2021 | Initial publication |

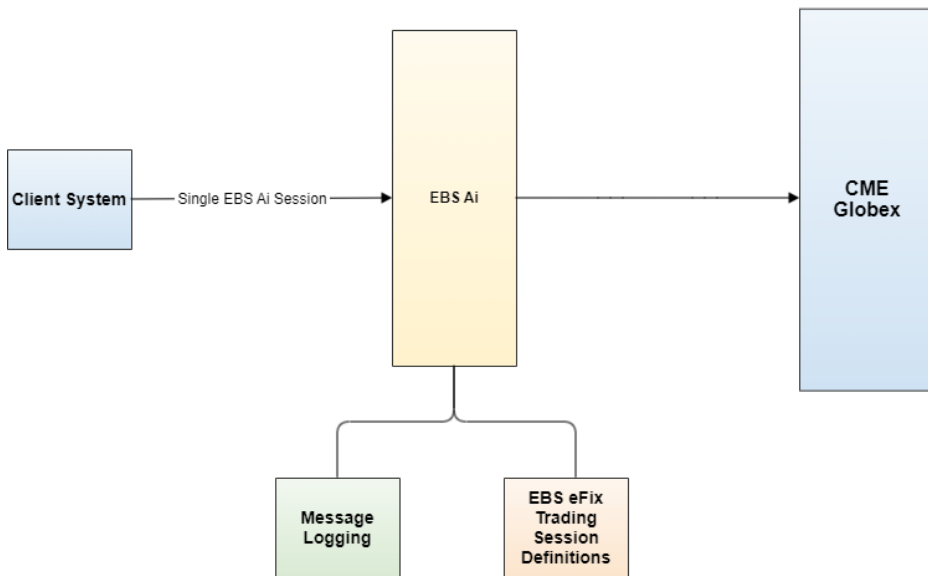
Testing and Certification

Certification is **not** required for customers for the new EBS Ai Ai.

Starting June 2021, EBS Ai will be available for customer testing in New Release. CME Group strongly encourages all customers and system providers to test EBS Ai in New Release before production launch.

System Architecture

This diagram shows the new EBS Ai on CME globe component integration with CME Globex Platform.



Connectivity

New Release Connectivity

All EBS Ai client systems will need to establish connectivity to the CME Globex New Release environments prior to testing. See the [EBS integration environments overview](#) for details about accessing the test environments.

- EBS Ai will be physically located in the Chicago DC3 data center
 - No EBS Customer Lab instance
- Accessible over CMEG Cert Data Center and CMEG Cert VPN
 - Not accessible over EBS VPN or EBS STunnel

| Service | Cert Data Center | Cert VPN(Internet) | Legacy EBS Lab |
|---------|------------------|--------------------|----------------|
| EBS Ai | ✓ | ✓ | ✗ |

Production Connectivity

Production Environment connectivity offerings and order forms for EBS Ai are currently available. [EBS Production Connectivity Options](#) reflects connectivity product descriptions, availability, setup, and more for each production connectivity option.

- EBS Ai will be physically located in the CME primary datacenters in New York, London, and Tokyo
- EBS Ai will be accessible over production CMEG network connections as follows:

| Service | GLink New York | GLink London | GLink Tokyo | CME Globex Hubs | NEX CDN | LNET | EConnect |
|---------|-------------------|-----------------|----------------|-----------------|---------|------|----------|
| EBS Ai | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |



For Disaster Recovery, Tokyo customers will connect to London EBS Ai, New York customers will connect to London EBS Ai, and London customers will connect to New York EBS Ai.

EBS Ai IP Changes

For this launch, all EBS Ai sessions must connect to new IPs. Please see the [EBS Operational Readiness Guide](#) for more details required for accessing and setting up EBS Ai on CME Globex, and support team contact details.

Summary of Functional Changes from Legacy Ai to EBS Ai

This table summarizes the differences across Legacy Ai and EBS Ai.

| | Legacy Ai | EBS Ai |
|----------------------------|--|--|
| Protocol | <ul style="list-style-type: none"> • Use FIX ASCII or XML | <ul style="list-style-type: none"> • Use FIX ASCII |
| EBS Venue Support | <ul style="list-style-type: none"> • EBS Market • EBS eFix • EBS Direct • EBS Select | <ul style="list-style-type: none"> • EBS Market • EBS eFix |
| Authentication | <ul style="list-style-type: none"> • Use source IP address to identify the firm of the user • Use cleartext username and password • Support forced and requested password changes via Ai | <ul style="list-style-type: none"> • Use cleartext username and password • Password must be changed manually via the CME Customer Center. |
| Market Data Support | <ul style="list-style-type: none"> • Market Views for order book management <ul style="list-style-type: none"> • Price Depth view • Spread view • Amount view • Full Amount view • Trade information over the market data publication interval is summarized into two prices: <ul style="list-style-type: none"> • Paid price is highest resting offer price executed during the interval • Given price is lowest resting bid price executed during the interval • Incremental Refresh Message (35=X) <ul style="list-style-type: none"> • MDEntries are published for Bid/Offer, EBS Best offer /EBS Best Bid, and Trade in the same 35=X message • In the event of the Trading System component failure, Legacy Ai sends the snapshot message to empty order book for only instruments that customer is currently subscribed to. | <ul style="list-style-type: none"> • Market View for order book management <ul style="list-style-type: none"> • Price Depth view • Provide the following market data to the client <ul style="list-style-type: none"> • Credit-screened market by price • EBS Best (top of book, unscreened) • Paid/Given • Incremental Refresh Message <ul style="list-style-type: none"> • MDEntries will be published for Bid/Offer and EBS Best offer/EBS Best Bid in one 35=X message • MDEntries for Trade (Paid/Given) will be published in a separate 35=X message • In the unlikely event of a CME Group component failure, the FIX session is terminated and the Ai client is disconnected. All working orders will be cancelled on behalf of Ai customers. |

| | | |
|----------------------|---|--|
| Order Support | <ul style="list-style-type: none"> • Order Types <ul style="list-style-type: none"> • Limit • eFix • Time in Force <ul style="list-style-type: none"> • GTC • IOC • FOK • Iceberg <ul style="list-style-type: none"> • Iceberg randomized quantity • Iceberg randomized replenishment time • Price Discretion (PD) <ul style="list-style-type: none"> • Specified as delta to limit price • Mid-PD (half price increment) • Self-Match Prevention <ul style="list-style-type: none"> • User's orders never allowed to match with own orders • User's orders conditionally allowed to match with orders from the same firm (i.e. Intra-floor trading) | <ul style="list-style-type: none"> • Order Types <ul style="list-style-type: none"> • Limit • eFix • Time in Force <ul style="list-style-type: none"> • GTC • IOC • FOK • Support for Iceberg orders will be available <ul style="list-style-type: none"> • The following iceberg parameters will not be available: <ul style="list-style-type: none"> • Randomized quantity • Randomized replenishment time • Price Discretion <ul style="list-style-type: none"> • Specified as delta to limit price • Self-Match Prevention at Trader Floor level |
| Trade Support | <ul style="list-style-type: none"> • Support Trade Query | <ul style="list-style-type: none"> • Support Trade Query |

EBS Ai Version Compatibility

EBS Ai will support version 1.6 and above: (i.e. v1.6 - v2.0.5)

A client logging in with a version different from what is stated above will result in a protocol violation and the client will be disconnected.

Instruments

The following instruments will be supported by EBS Ai:

- FX Spot
 - Central Limit Order Book
 - eFix dark pool
- Non-Deliverable Forward(NDF)
 - Standard rolling-date NDFs
 - Both On-SEF/MTF and Off-SEF/MTF
 - Fixed-date NDFs

The following instruments will **NOT** be available on EBS Ai:

- NDF Fix Outright (NDF TOD)
- NDF Swap (NDF/NDF TOM)

Market Segments

The following Market Segments will be support by EBS Ai:

- Standard
- Fixing (eFix)

The following Market Segments will **NOT** be available:

- Fixing Offset
- Swap Offset

Functionality Overview

EBS Ai functionality supports the following functional areas:

- **Logon** – Session and Application logon, change password, Session and Application logoff
- **Trading and Market Data** – subscribe, unsubscribe
- **Orders** – order submit, order amend, order interrupt, interrupt all, execution report
- **Deals** – trade capture, trade capture request
- **Session** – trade date change, value date change, system up/down, credit low/exhausted, etc.

New and Modified Functionality

Existing EBS customers leveraging EBS Ai to trade EBS Market and eFix Matching Service products on CME Globex must be aware of the changes in functionality described below.

Authentication

To send logon request to EBS Ai:

1. The EBS Ai user connects using FIX ASCII over TCP connection
2. After establishing a network connection, user sends two logon messages:
 - a. FIX session logon message (tag 35-MessageType=A) to EBS Ai
 - b. Application logon request message (tag 35-MessageType=BE) with username and password to begin a new Trading Session
 - i. Current usernames cannot be used, as they are not unique across Globex Firm IDs (GFIDs)
 - ii. New unique usernames will be issued to customers
3. User must make configuration change to use the new username

New Username

The Legacy Ai username will not be carried forward. EBS Ai customer must register for a CME Group Login in the [CME Customer Center](#) to receive a new globally unique username. The new username will be populated with the API ID. See the [EBS Operational Readiness Guide](#) for a new client onboarding and setup resource to assist clients with the integration of EBS Ai onto CME Globex.

Password Change

To align with CME Globex logon, EBS Ai will not support password change as part of the logon process. If the EBS Ai client supports a periodic password change, the password must be manually changed via the [CME Customer Center](#).

Self-Match Prevention (SMP)

SMP at Trader ID level

Legacy Ai prevents users from self-matching by "matching around" orders from the same user. EBS Ai Adapter **does not** support SMP at the Trader ID level, and users will match with their own orders.

Orders submitted using the same Trader ID are **able** to match. Customers must avoid submitting opposing interest to avoid self-match.

SMP at Trader Floor Level

Intra-floor dealing enable/disable will be supported on CME Globex via Self Match Prevention ID (SMP ID). Customers that need to avoid intra-floor trading must register their intra-floor (GFID) and SMP ID via the Firm Administrator Dashboard (FADB). Customer registration is required to access FADB or contact your Global Account Manager for an offline registration.

MiFID Short Code

Legacy EBS Ai supports alphanumeric short codes. CME Globex supports only numeric short codes. Customers using alphanumeric short codes must re-register on the [NEX Upload Facility](#) (NUF) with numeric short codes.

Market View

EBS Ai supports Price Depth market view.

The following market view types will no longer be supported:

- Spread view
- Amount view
- Full Amount view

Price Depth View

In Price Depth view, an aggregate depth book is sequenced by price, descending for bid and ascending for Offer.

EBS Ai maintains the Aggregate Depth view with the following data blocks:

- Add - create/insert a new price (tag 279 MDUpdateAction=0)
- Change - change quantity for a price (tag 279 MDUpdateAction=1)
- Delete - remove a price (tag 279 MDUpdateAction=2)

An Aggregate book is built from a series of data blocks which indicate whether an entry is to be inserted (Add), changed (Change), or removed (Delete). All data blocks are issued for a specified entry type (tag 269), and price (tag 270). The incremental instruction approach assumes the use of the [EBS Ai Market Data Incremental Refresh](#) (tag 35-MessageType = X) message.

When a new price level is added to the order book, and followed by updates to delete an existing price level and add a new price level:

- MDUpdateAction to add the entry (tag 279 = 0) will be published in one 35=X message
- MDUpdatesAction to delete the entry (tag 279 = 2) and add the new entry (279=0) will be published in a separate 35=X message

Example:

The example in this topic shows the update performed on an existing Price Depth book when a new price level is added to the order book, and followed by an update message to delete the existing price.

Starting book: 5-Deep - Best Bid/Offer

| Bid | | Offer | |
|----------|-------|-------|----------|
| Quantity | Price | Price | Quantity |
| 1M | 76.02 | 76.05 | 1M |
| | | 78.71 | 1M |
| | | 78.72 | 1M |
| | | 78.84 | 1M |
| | | 78.85 | 1M |

The first 35=X Data Block:

- Add 1M Offer @ 76.04

| Tag Number | Tag Name | Value | Description |
|------------|-----------------|----------|--|
| 279 | MDUpdateAction | 0 | New |
| 269 | MDEntryType | 1 | Offer |
| 55 | Symbol | NZD/JPY | Currency Pair |
| 461 | CFI Code | RCSXXX | FX Spot |
| 63 | SettlType | 0 | Regular Spot Settlement |
| 1300 | MarketSegmentID | Standard | Identifies the type of order book in which the instrument is traded. |
| 270 | MDEntryPx | 76.04 | Price |
| 271 | MDEntrySize | 1M | Quantity |

Updated book:

| Bid | | Offer | |
|----------|-------|-------|----------|
| Quantity | Price | Price | Quantity |
| 1M | 76.02 | 76.04 | 1M |
| | | 76.05 | 1M |
| | | 78.71 | 1M |
| | | 78.72 | 1M |
| | | 78.84 | 1M |

Note: An update message is not sent to delete the existing 1M Offer @78.85 that has exceeded the **5-Deep book**.

The second 35=X Data Block:

- Delete 1M Offer @ 76.05

| Tag Number | Tag Name | Value | Description |
|------------|-----------------|----------|---|
| 279 | MDUpdateAction | 2 | Delete |
| 269 | MDEntryType | 1 | Offer |
| 55 | Symbol | NZD/JPY | Currency Pair |
| 461 | CFI Code | RCSXXX | FX Spot |
| 63 | SettlType | 0 | Regular Spot Settlement |
| 1300 | MarketSegmentID | Standard | Identifies the type of order book in which the instrument is traded |

| | | | |
|-----|-------------|-------|----------|
| 270 | MDEntryPx | 76.05 | Price |
| 271 | MDEntrySize | 1M | Quantity |

- Add 1M Offer @ 76.85

| Tag Number | Tag Name | Value | Description |
|------------|-----------------|----------|---|
| 279 | MDUpdateAction | 0 | New |
| 269 | MDEntryType | 1 | Offer |
| 55 | Symbol | NZD/JPY | Currency Pair |
| 461 | CFI Code | RCSXXX | FX Spot |
| 63 | SettlType | 0 | Regular Spot Settlement |
| 1300 | MarketSegmentID | Standard | Identifies the type of order book in which the instrument is traded |
| 270 | MDEntryPx | 76.85 | Price |
| 271 | MDEntrySize | 1M | Quantity |

Updated Book:

| Bid | | Offer | |
|----------|-------|-------|----------|
| Quantity | Price | Price | Quantity |
| 1M | 76.02 | 76.04 | 1M |
| | | 78.71 | 1M |
| | | 78.72 | 1M |
| | | 78.84 | 1M |
| | | 78.85 | 1M |

Market by Price Depth

EBS Ai will not allow the user to specify the number of price levels.

Market Data and Trading Subscription

When the EBS Ai client sends Market Data Subscription Request for the specific instruments,

- For a trade only subscription request, the EBS Ai's response to each successful request is a Market Data – Snapshot/Full Refresh (W), devoid of initial bid and offer values.
- For a request to trade and subscribe to market views, the EBS Ai's response to each successful request is composed of two message types:
 - Market Data – Snapshot/Full Refresh (W) message, containing the full set of market data
 - Market Data – Incremental Refresh (X) messages, sent whenever there is a change to the market data

Market Data – Incremental Refresh

This table summarizes the Market Data-Incremental Refresh message differences across Legacy Ai and EBS Ai.

| | Legacy Ai | New EBS Ai |
|--|--|--|
| Market Data Subscription Response | When a client is subscribed for multiple instruments in a single Subscription Request, Incremental Refresh messages will be sent after all Snapshot/Full Refresh messages are sent for subscribed instruments. | When a client is subscribed for multiple instruments in a single Subscription Request, EBS Ai may interleave Snapshot/Full Refresh messages with Incremental Refresh messages. |
| Market Data Update | The Incremental Refresh message can contain updates for multiple instruments in a single message. | Each Incremental Refresh message contains a single instrument update and not batch multiple instruments together. |
| MDEntries (tag 269) | MDEntries are published for Bid/Offer, EBS Best offer/EBS Best Bid, and Trade (Paid/Given) in a single 35=X message. | MDEntries are published as follows: <ul style="list-style-type: none"> • Bid/Offer and EBS Best offer/EBS Best Bid updates in one 35=X message • MDEntries for Trade (Paid/Given) in a separate 35=X message |

| | | |
|---|--|--|
| MDLastIncrementalRefresh (tag 20203) | Send tag 20203=1 to indicate the last Incremental Refresh message specific to the instrument(s) contained in each client subscription. | Send tag 20203= 1 to indicate the last Incremental Refresh message for any updates that happened on the market for overall subscribed instruments (i.e. client can send multiple subscription requests for different instruments each time). |
|---|--|--|

MDLastIncrementalRefresh (tag 20203)

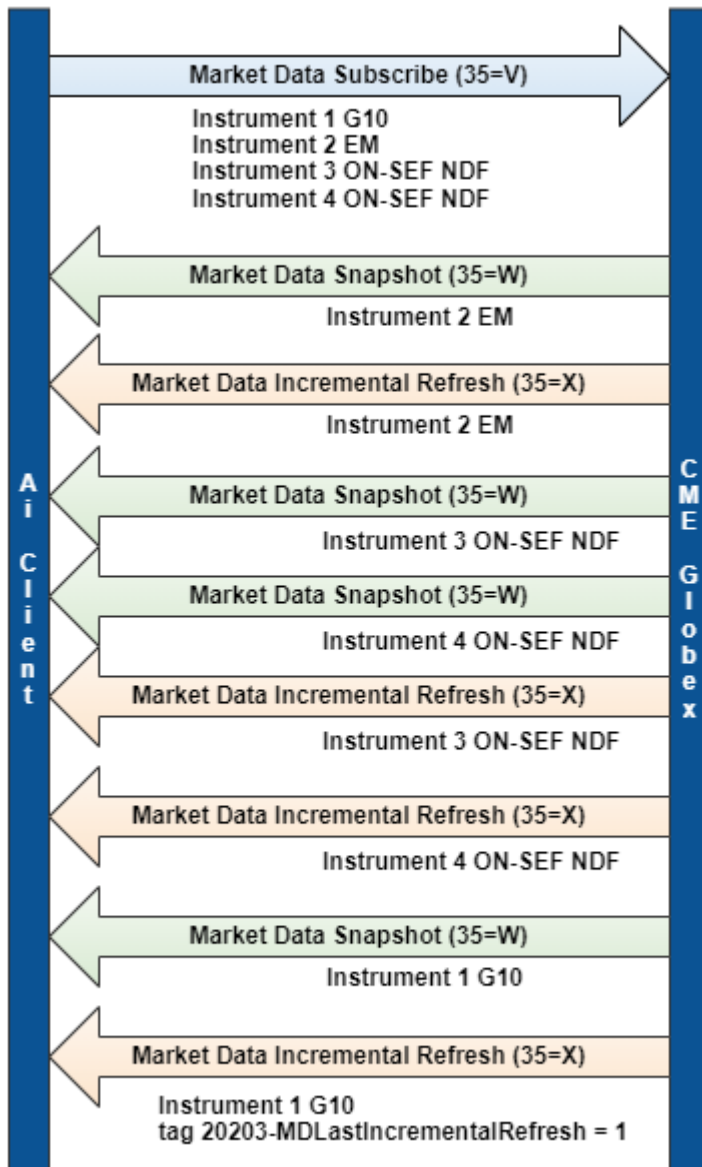
EBS Ai will also notify the client whether or not this market data update message is the last in the corresponding time-slice by means of custom tag 20203-MDLastIncrementalRefresh.

Legacy Ai currently sends tag 20203=1 to indicate the last Incremental Refresh message specific to the instrument(s) for each Subscription Request.

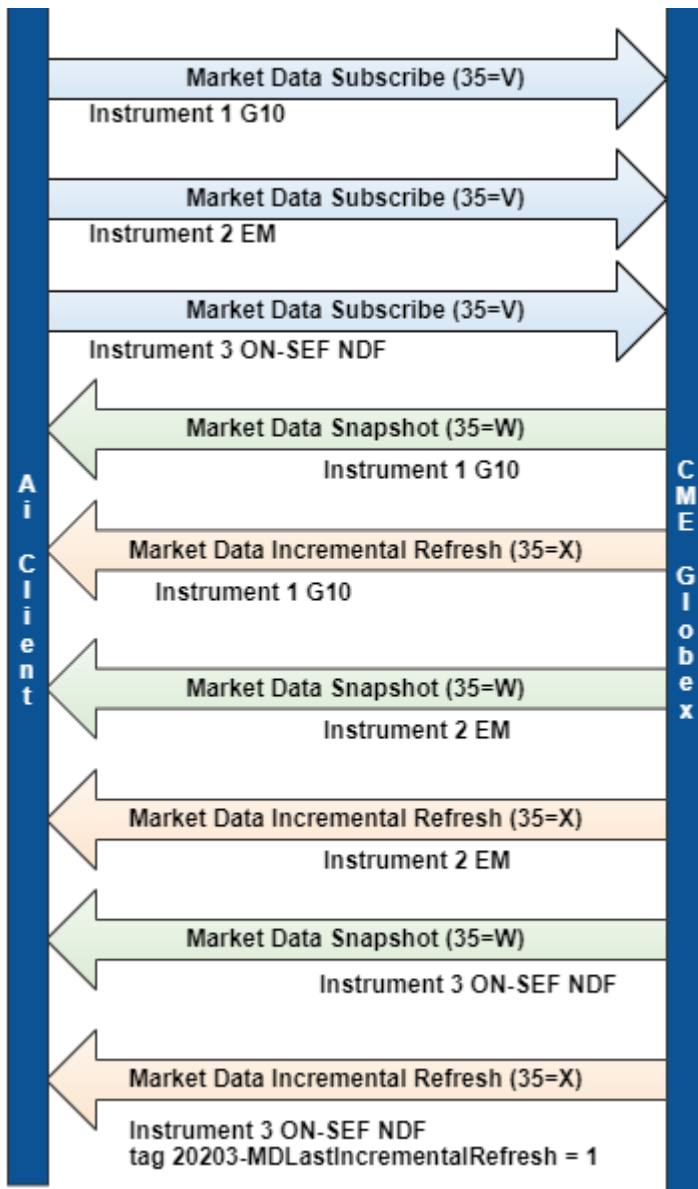
EBS Ai will send tag 20203=1 to indicate the last Incremental Refresh message for any updates that happened on the market for overall subscribed scope as follows:

- Single subscription request with multiple instruments
- Multiple subscription requests with one instrument each

Single Subscription Request with Multiple Instruments



3 Subscription Requests with 1 Instrument in Each



Order Price Validation

Legacy Ai provided additional, optional price validations that could be requested by the user as part of the logon process. These additional validations are deprecated.

Order Amend Request Reject

Legacy Ai cancels original order immediately when an Order Amend Request is rejected due to, for example, lack of credit. Once the Order Amend has been rejected, no more messages pertaining to the rejected request will be sent to the client.

EBS Ai will emulate Legacy Ai behavior and cancel the order if an Order Amend Request is rejected. This emulation may have certain differences from the Legacy Ai.

! CME Group strongly recommends customers relying upon Legacy Ai Order Amend functionality consider testing EBS Ai Cancel /Replace functionality prior to migration.

Application Logoff

Upon an Application Logoff, the EBS Ai will cancel all working orders **without** sending cancel acknowledgments.

| Legacy Ai | New EBS Ai |
|--|---|
| <ul style="list-style-type: none"> Client sends the Logoff Request message Legacy Ai cancels all working orders and send Execution Report with OrdStatus = Cancelled[4] to client Legacy Ai sends Logoff Response message | <ul style="list-style-type: none"> Client sends the Logoff Request message EBS Ai cancels all working orders without sending cancel acknowledgment to client EBS Ai sends Logoff Response message |

Trade Query

EBS Ai does not support retransmission of messages. To ensure no trades are lost during session interruption, EBS Ai provides the Deal Query feature.

- Deal Query can be used to request information about deals executed within the most recent week by OrderID or ClOrdID.
- Queries can be performed based on **ClOrdID** or **OrderID**.
- Deal Query allows the EBS Ai client to retrieve the status and details of deals associated with the orders on CME Globex.
- To use Deal Query, the Ai client application must retain one of the IDs associated with the order; **ClOrdID** or **OrderID**.
- EBS Ai supports Deal Query with the Trade Capture Report Request, Trade Capture Report Request Ack, and Trade Capture Report FIX messages.
 - The Trade Capture Report message contains information for the associated deals based on selected criteria (requested by unique customer Reference ID or Globex order ID) within a week.
 - For a specific order that resulted in multiple deals, a successful Deal Query returns a Trade Capture Report Request message containing all deal information related to that order.
 - If there is no result for a valid Deal Query, a Trade Capture Report Request Ack message returns with the total number of Trade Reports set to zero.
 - Deal Queries are limited to retrieving deals for the current week. Attempts to retrieve earlier deals will result in a Report Ack message with a Warning message indicating the deals were out of the time range.
 - EBS Ai rejects Trade Capture Report Requests submitted without qualifiers, more than one qualifier, with incorrectly formatted references, or with invalid deal or order IDs.

Counterparty Trader ID

Counterparty Trader ID will no longer be provided via EBS Ai.

Deprecated Ai Functionality

| Functionality | Notes |
|--|---|
| Auto cancel duplicate session | These features will be ignored if specified at the application logon. |
| Large difference check | |
| Price check | |
| Wide spread check | |
| Order throughput | |
| Deal code specification | |
| Allow Attempted Fill Or Kill (AFOK) info | |
| Allow Prime Customer (PC) gross credit events | |
| Allow Prime Customer (PC) netted credit events | |
| Hide-my-prices | |
| Allow mid price | |
| Allow fix points info | |


| | |
|---|--|
| Allow NDF swap info | |
| Allow execution region info | |
| Alternative deal code | |
| QDM platform access | |
| NDF Swaps | |
| NDF Swap reference rate | |
| Credit event notification | |
| Iceberg randomized quantity | |
| Iceberg randomized replenishment time | |
| Price discretion - Mid PD | |
| eFix - residual auction | |
| AI XML protocol support | |
| Credit events via AI | |
| Trader ID-level self match prevention | |
| PD min quantity | |
| Password change via AI Protocol | |
| Market by price depth on MD subscription | |
| Multi-order amendment by non-unique client order ID | |
| Session recovery | If messages are received out of sequence by the client, it is recommended that the client discontinue the session and contact the Global Command Center (GCC) to investigate the missing message(s). |
| Entitlements enforcement | CME Globex will enforce EBS Ai entitlements for: <ul style="list-style-type: none"> • Order submission • Market data subscription • Feature access EBS Ai will use product entitlements to filter Security Definitions. |
| User disablement / session kill switch | CME Globex implement EBS Ai user controls |
| Market status and associated controls | CME Globex will enforce Market State and other Market Integrity Controls. |

Message-Level Changes

In the EBS Ai release, there will be changes to certain supporting FIX message layouts.

The following sections contain the tag-level client system messaging impacts that must be accommodated to integrate to the EBS Ai on CME Globex for Trading and Market Data.

| Message | Fix Tag | Enhancement |
|--|----------------------|---|
| EBS Ai Standard Header | tag 56-TargetComp ID | Support for tag with the value of: Ai_Server |
| EBS Ai Application Logon Request | tag 553-Username | Each EBS Ai instance will only support a single trader, not multiple traders. |

| | | |
|---|-----------------------------|---|
| | tag 5977-UserDataName | <p>EBS Ai will only support the following parameters:</p> <ul style="list-style-type: none"> • SendConfirmedDeals • AllowFixingInfo • AllowAFOKInfo <p>EBS Ai will not support the following parameters:</p> <ul style="list-style-type: none"> • AutoCancelDuplSession • LargeDifferenceCheck • PriceCheck • WideSpreadCheck • HideMyPrices • OrderThroughput • ClientType • AggregationProvider • Dealcode • AllowFixPointsInfo • AllowNDFSwapInfo • AllowMidPx • AllowExecRegionInfo • AllowPCGrossCreditEvents • AllowPCNettedCreditEvents <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  EBS Ai will ignore the unsupported parameters which are set by the client. </div> |
| EBS Ai Application Logon Response - Success | tag 5977-UserDataName | <p>EBS Ai will only support the following parameters:</p> <ul style="list-style-type: none"> • TotalActiveOrders • NumberOfOrders • NumberOfOrdersTimeInterval • AiHostName • AiPort <p>EBS Ai will not support the following parameters:</p> <ul style="list-style-type: none"> • IcebergRandomTimeIncrement • IcebergMaxRandomTime |
| | tag 12008-SettlType2 | These tags will be deprecated and will not be present on EBS Ai outbound messages. |
| | tag 12013-MaturityDate2 | |
| | tag 20101-NoSpreads | |
| | tag 20103-SpreadPriceOffset | |
| | tag 20102-NoAmounts | |
| | tag 20104-CumulativeAmount | |
| | tag 20113-NoFullAmounts | |
| tag 20114-FullAmount | | |
| | tag 336-TradinSessionID | EBS Ai will set tag value to 1 for "Standard" session. |
| | tag 20105-PriceDepthRange | EBS Ai will not support this parameter and will set tag value to 9999 |

| | | |
|-----------------------------|-----------------------------|---|
| | tag 1300-MarketSegmentID | <p>Valid values are:</p> <p>“Fixing” “Standard”</p> <p>EBS Ai will not support "FixingOffset" and “SwapOffset”</p> |
| | tag 9001-NestedUserDataName | <p>EBS Ai will support the following parameters:</p> <ul style="list-style-type: none"> • priceIncrement • maxSize • sizeIncrement • maxPriceDiscretion • minPOrderQty • quotePriceIncrement • minQuoteSubmitSize • minHitSubmitSize • icebergMinDisplayQty • icebergMaxHiddenQty • midPDEnabled • aFOKEEnabled <p>EBS Ai will not support the following parameters:</p> <ul style="list-style-type: none"> • xPips • wideSpread • largeDiff <ul style="list-style-type: none"> • tag 9002-NestedUserData value for these 3 parameters will default to 9999.0000 • isBasket • formula • fixPointIncrement • maxFixPoints • minFixPremiumOrderQty • maxFixPremiumOrderQty • execRegionEnabled |
| EBS Ai Trading Session List | tag 1300-MarketSegmentID | <p>Valid values are:</p> <p>“Fixing” “Standard”</p> <p>EBS Ai will not support "FixingOffset" and “SwapOffset”</p> |
| | tag 342-TradSesOpenTime | <p>Not populated if tag 55-Symbol contains NZD - as base or local currency</p> <p>NZD Opening time on weekdays:</p> <ul style="list-style-type: none"> • if Fixing Time doesn't coincide with 7AM Wellington then market will open at 7AM Wellington • If Fixing Time =7 AM Wellington Time, then market will open at 8 AM Wellington <p>On Sundays all markets open at 1 PM ET across all products</p> |
| EBS Ai Heartbeat | | <p>If the EBS Ai Client fails to send a Heartbeat message, and no other message from the EBS Ai Client was received by the EBS Ai for a period of 3 seconds, the EBS declares the connection stale, interrupts all EBS Ai Client's active orders, and the EBS Ai terminates the session and disconnects the EBS Ai Client.</p> <p>The EBS Ai will not continue to wait for Heartbeats for another 3 seconds , after the connection is declared stale</p> |
| EBS Ai Market Data Request | tag 1021-MDBooktype | <p>Valid values is: 2 – Price Depth View</p> <p>EBS Ai will not support:</p> <ul style="list-style-type: none"> • 1101 - Spread View • 1102 - Amount View • 1103 – Full Amount View |

| | | |
|---|---|---|
| | <p>tag 20201-MDMarketDepthFromLevel</p> <p>tag 20202-MDMarketDepthToLevel</p> <p>tag 12008-SettlType2</p> | EBS Ai will not support these tags. |
| | <p>tag 1300-MarketSegmentID</p> | <p>Valid values are:</p> <p>“Fixing”</p> <p>“Standard”</p> <p>EBS Ai will not support "FixingOffset" and "SwapOffset"</p> |
| EBS Ai Market Data Snapshot Full Refresh - Trade Only | <p>tag 12008-SettlType2</p> | This tag will be deprecated and will not be present on Snapshot Full Refresh messages. |
| | <p>tag 1300-MarketSegmentID</p> | <p>Valid values are:</p> <p>“Fixing”</p> <p>“Standard”</p> <p>EBS Ai will not support "FixingOffset" and "SwapOffset"</p> |
| EBS Ai Market Data Snapshot Full Refresh - Trade and Market | <p>tag 276-Quote condition</p> | <p>Valid value is 1000 - No market activity</p> <p>EBS Ai will not support 1001 - No data available</p> |
| | <p>tag 277-Trade condition</p> | |
| | <p>tag 269-MDEntryType</p> | <p>Valid values:</p> <ul style="list-style-type: none"> • 0 = Bid • 1 = Offer • 2 = Trade (paid, given) (Not applicable for Direct pairs) • w = EBS Best Offer • x = EBS Best Bid <p>EBS Ai will not support:</p> <ul style="list-style-type: none"> • y = Reference rate |
| | <p>tag 1021-MDBooktype</p> | <p>Valid values is: 2 – Price Depth View</p> <p>EBS Ai will not support:</p> <ul style="list-style-type: none"> • 1101 - Spread View • 1102 - Amount View • 1103 – Full Amount View |
| | <p>tag 1300-MarketSegmentID</p> | <p>Valid values are:</p> <p>“Fixing”</p> <p>“Standard”</p> <p>EBS Ai will not support "FixingOffset" and "SwapOffset"</p> |
| EBS Ai Market Data Incremental Refresh | <p>tag 1021-MDBooktype</p> | <p>Valid values is: 2 – Price Depth View</p> <p>EBS Ai will not support:</p> <ul style="list-style-type: none"> • 1101 - Spread View • 1102 - Amount View • 1103 – Full Amount View |
| | <p>tag 20203-MDLastIncrementalRefresh</p> | Market Data End of Interval Handling |

| | | |
|---------------------------------|---|---|
| | tag 269-MDEntryType | <p>Valid values are:</p> <ul style="list-style-type: none"> • 0 = Bid • 1 = Offer • 2 = Trade (paid, given) (Not applicable for Direct pairs) • w = EBS Best Offer • x = EBS Best Bid <p>EBS Ai will not support:</p> <ul style="list-style-type: none"> • y = Reference rate |
| | tag 1300-MarketSegmentID | <p>Valid values are:</p> <p>“Fixing” “Standard”</p> <p>EBS Ai will not support "FixingOffset" and "SwapOffset"</p> |
| | tag 276-QuoteCondition | <p>Valid values is 1000 - No market activity</p> <p>EBS Ai will not support 1001=No data available</p> |
| | tag 12008-SettlType2 | <p>This tag will be deprecated and will not be present on Incremental Refresh messages.</p> |
| EBS Ai Order Submit Request | tag 461-CFICode | <p>Valid values are:</p> <ul style="list-style-type: none"> • RCSXXX = SPOT • FFCNNO = NDF <p>EBS Ai will not support FFCNNW = NDF Swap (NDS)</p> |
| | tag 1300-MarketSegmentID | <p>Valid values are:</p> <p>“Fixing” “Standard”</p> <p>EBS Ai will not support "FixingOffset" and "SwapOffset"</p> |
| | tag 1084-DisplayMethod tag 12008-SettlType2 tag 12014-Points tag 20112-IcebergHighRandomTime tag 20405-ExecRegion | <p>EBS Ai will not support these tags.</p> |
| EBS Ai Order Submit Response | tag 1084-DisplayMethod | <p>EBS Ai does not support random replenishment quantity on iceberg orders.</p> <p>Always set value to 1 on Order Submit Response</p> |
| | tag 20112-IcebergHighRandomTime | <p>EBS Ai will not support this tag.</p> |
| EBS Ai Order Amend Request | tag 12008-SettlType2 tag 12014-Points | <p>EBS Ai will not support these tags.</p> |
| EBS Ai Order Interrupt Response | tag 12008-SettlType2 tag 12014-Points | <p>EBS Ai will not support these tags.</p> |

| | | |
|--|---|---|
| EBS Ai Trading Session Status and Date Updates | tag 193-SettlDate2 tag 12008-SettlType2 tag 12013-MaturityDate2 | These tags will be deprecated and will not be present on Trading Session Status messages. |
| | tag 340-TradSesStatus | <p>Valid values are:</p> <ul style="list-style-type: none"> • 2 = Open • 3 = Closed • 1006 = Trading Day Update • 1007 = Value Date Update • 1008 = Trade Date Update <p>EBS Ai will not support the following values:</p> <ul style="list-style-type: none"> • 1000 = Credit Available • 1001 = Credit Low • 1002 = Credit Exhausted • 1003 = EBS Up • 1004 = EBS Down |

EBS Ai Messaging Inbound/Outbound

| FIX Messages | | | | |
|--------------------|--|--------------------------------|--|------------|
| EBS Ai Request | | FIX Msg | EBS Ai Response | FIX Msg |
| Logon | FIX Session Logon Request | A | FIX Session Logon Response | A |
| | Logon Request | BE | Logon Response | BF |
| | | | Trading Session List | BJ |
| | Application Logoff Request | BE | Logoff Response | BF |
| Market Data | Trading Subscribe | V | Subscribe Response (snapshot/full refresh) | W |
| | Market Data Subscribe | | Subscription Rejection | Y |
| | N/A | | Incremental updates (following the initial subscription) | X |
| | Market Data Unsubscribe request (no response needed) | V | N/A | |
| Orders | Order Submit request | D | Execution Report | 8 |
| | N/A | | Execution report (generated by changes to Order Status) | 8 |
| | Order Amend | G | Execution Report (with status) | 8 |
| | | | Order Cancel/Replace Reject | 9 |
| | Order Interrupt | F | Execution Report (with status) | 8 |
| | | | Order Cancel Reject | 9 |
| Interrupt All | q | Execution Report (with status) | 8 | |
| Trades | N/A | | Trade Capture Report (generated by the execution of a trade) | AE |
| | Trade Capture request (query) | AD | Trade Capture report | AE |
| | | | Request Failed | AR |
| Session | N/A | | Session Message (initiated by session events) | h |