IEX OPTIONS COMMON SPECIFICATION

Version 1.00

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OVERVIEW

IEX Options LLC ("IEX Options") is a wholly owned subsidiary of IEX Group, Inc. that operates an options exchange trading system (the "System"). The System is designed to offer an electronic limit order book for transacting listed options.

This document defines the IEX Options messages that are common to the IEX Options DEEP and IEX Options TOPS feeds:

- **Time** – Broadcasts the current clock second, used in conjunction with the Time Offset field on business messages to form a precise timestamp.
- **Underlying Reference Data** – Provides reference information about the underlying assets for options, including identifiers and pricing attributes necessary for market participants.
- **Symbol Mapping** – Supplies a mapping between underlying symbol to options series. A given options series is uniquely identified by its Instrument ID. This message also includes information about the Trading Ring and Matching Unit that the instrument is traded on.
- **Instrument Clear** – Signals a full clear of the displayed book for a given Instrument ID.
- **Trading Status** – Communicates real-time updates about the trading state of an options instrument, such as trading halts, resumptions, or regulatory interruptions.
- **Options Auction Imbalance** – Provides imbalance information during auction periods, indicating buying or selling pressure and quantities unmatched before auction execution.
- **Options Auction Summary** – Delivers final summary data following an options auction, including matched quantities and price outcomes.
- **Liquidity Event Notification** – Communicates the occurrence of a liquidity event, such as a Step-Up Mechanism (SUM).
- **Liquidity Event Execution** – Reports executions resulting from liquidity events. A single event may generate multiple execution messages, each detailing price, quantity, and execution identifiers.
- **Liquidity Event Cancel** – Informs participants when a liquidity event has been canceled or concluded without full execution. Reasons for cancelation may include order cancelation or modification, NBBO movement, or partial fills with remaining quantities removed.

This document is offered for informational purposes at this time, and the contents are subject to change. As of February 5, 2026, IEX Options LLC is not yet an operating trading venue. Some of the functionality described may not have received regulatory approval.

Architecture

IEX Options market data feeds are comprised of a series of sequenced messages. Each message is variable in length based on the message type. IEX reserves the right to add message types and grow the length of any messages without notice. Subscribers should develop their decoders to deal with unknown message types and messages that grow beyond the expected length. Messages will only be extended to add additional fields to the end of a message. The messages that make up the data feed are delivered using a lower-level protocol that takes care of sequencing and delivery guarantees. See the *IEX Options Market Data Transport Protocol* document for more details.

Encoding

IEX Options direct feeds utilize the FIX Trading Community's Simple Binary Encoding (SBE) to specify message encoding.

The feed is always encoded in Little Endian byte order.

Data Types

Primitive Types

For more information on primitive type encoding, see the SBE specification.

Type	Length (bytes)	Description	Value Range	Null Value
CHAR	1	ASCII Character	0(NUL) to 127(DEL)	0
STRING(*n*)	*n*	Array of CHARs, right padded with NULL characters.	Array of 0(NUL) to 127(DEL)	0
INT8	1	Signed Integer	-127 to 127	-128
INT16	2	Signed Integer	-32767 to 32767	-32768
INT32	4	Signed Integer	-2^31 + 1 to 2^31 - 1	-2^31
INT64	8	Signed Integer	-2^63 + 1 to 2^63 - 1	-2^63
UINT8	1	Unsigned Integer	0 to 254	255
UINT16	2	Unsigned Integer	0 to 65534	65535
UINT32	4	Unsigned Integer	0 to 2^32 - 2	2^32 - 1
UINT64	8	Unsigned Integer	0 to 2^63 – 1	2^64 - 1

SBE Header

SBE includes a header for each message. The SBE header is followed by the SBE body for the message.

Field	Offset	Length	Type	Description
Block Length	0	2	UINT16	The number of bytes in the message body (does not include the header bytes)
Template ID	2	2	UINT16	Identifier of the message template (ie. the message type)
Schema ID	4	2	UINT16	The identifier of a message schema NOTE: SchemaID=10 for IEX Options DEEP SchemaID=20 for IEX Options TOPS
Version	6	2	UINT16	The version number of the message schema that was used to encode the message

Price8

Prices are fixed-point scale decimal, encoded as a signed long (INT64) mantissa and a constant exponent of -8.

Type Name	Length	Type	Description
Mantissa	8	INT64	The fixed-point decimal representation of the price

Note: The exponent is marked presence="constant" in the SBE schema and is not transmitted over the wire.

MPVType

MPVType describes the minimum price variation for an instrument.

MPVType is a 1-byte INT8 value.

Value	Name
0	All Penny
1	Penny / Nickel
2	Nickel / Dime

OptionType

OptionType describes whether this option is a Put or Call.

OptionType is a 1-byte INT8 value.

Value	Name

0	Put
1	Call

BooleanType

Boolean values are not defined specifically in SBE.

The schema defines a BooleanType which represents a numeric value with True = 1 and False = 0.

TradingStatusType

TradingStatusType represents the current trading state of an instrument on IEX Options.

TradingStatusType is a 1-byte INT8 value.

Value	Name
0	Halted
1	Pre-Opening
2	Opening Process
3	Continuous Trading
4	Re-Opening Process
5	Suspended
6	Queueing

AuctionType

AuctionType describes whether this is an opening or halt re-opening auction.

AuctionType is a 1-byte INT8 value.

Value	Name
0	Opening
1	Halt Re-Opening

LiquidityEventType

LiquidityEventType describes the type of liquidity event.

LiquidityEventType is a 1-byte INT8 value.

Value	Name
0	Step Up Mechanism (SUM)

SideType

SideType describes the side the order is on: either bid (buy) or offer (sell).

SideType is a 1-byte INT8 value.

Value	Name
1	Buy
2	Sell

CapacityType

CapacityType of the order. Used for SUMed orders.

CapacityType is a 1-byte INT8 value.

Value	Name
0	Customer
1	Firm
2	Broker/Dealer
3	Market Maker
4	Away Market Maker
5	Prof Customer
6	Not Disclosed

CustIndType

CustIndType indicates Priority Customer capacity, if applicable, of the order.

CapacityType is a 1-byte INT8 value.

Value	Name
0	Customer
1	Non-Customer (incl. Professional Customers)

ModFlagType

ModFlagType indicates whether an order maintains or resets priority after a modification.

CapacityType is a 1-byte INT8 value.

Value	Name

0	Reset Priority
1	Maintain Priority

ORPType

ORPType indicates whether an order has ORP protection enabled.

ORPType is a 1-byte INT8 value.

Value	Name
0	ORP Protection Enabled
1	ORP Protection Disabled

CloseIndicatorType

CloseIndicatorType is used to notify when trading and order acceptance for all instruments belonging to the Underlying Symbol specified has concluded for the trading day. CloseIndicatorType will be set to 0 when the initial Underlying Ref Data message is published at Start of Day.

CloseIndicatorType is a 1-byte INT8 value.

Value	Name
0	Default
1	Underlying Closed

Timestamp Relationships

Timestamps establish a total ordering of a happened-before relationship within the IEX Trading System. Within a Channel ID, if Message A has a lower Timestamp than Message B, then the event causing Message A happened before (i.e., preceded) the event causing Message B. Messages with the same Timestamp (regardless of Message Type or Instrument ID) were caused by the same event and may be interpreted to have happened simultaneously and atomically within the IEX Trading System.

IEX Options Market Data Feed Infrastructure

IEX Options leverages a multi-ring architecture intended to maximize performance at scale. This architecture includes multiple Trading Rings from which market data will be published. Trading Rings also house the various Matching Units on which tradeable series (Instrument IDs) are maintained. A given Instrument ID is on a single Matching Unit, which is in a single Trading Ring. Additionally, all Instrument IDs sharing the same underlying symbol will be deployed in the same Trading Ring.

Further details on grouping of Matching Units within Trading Rings to market data feed Channel IDs will be made available in a later version of this specification.

NETWORK DETAILS

Note that network details are subject to change. Please contact IEX Market Operations by emailing optionsmktops@iextrading.com or calling 646 343 2004 for the most up-to-date network details available.

IEX Options Test Facility Multicast Addresses

SITE	XC Type	Group	Port	Source IP Subnet
IEX Testing Facility NY3	Tertiary (C)	233.103.213.10 233.103.213.11 233.103.213.20 233.103.213.21	3001 TOPS A 3002 DEEP A 3001 TOPS B 3002 DEEP B	172.87.250.32/28
IEX Testing Facility NY3 RP	Tertiary (C)	N/A	N/A	172.87.250.49
https://certifyoptions.iextrading.com/	209.51.190.226:8000-9000 (port to be assigned per session)	N/A	TCP 8000-9000 (port to be assigned per session)	Access from internet to ITF

IEX Options Production Environment Unicast & Multicast IPv4

SITE	XC Type	Group	Port	Source IP Subnet	AS
IEX NY3 PROD Facility A Feeds	A	233.101.159.0/25	N/A	172.87.249.0/24	26015
IEX NY3 PROD Facility B Feeds	B	233.101.159.128/25	N/A	207.11.223.0/24	26015
IEX NY3 PROD Facility NY3 RP	A	N/A	N/A	172.87.250.52/32	26015
IEX NY3 PROD Facility NY3 RP	B	N/A	N/A	172.87.250.60/32	26015

IEX Options Production Environment A Feeds Unicast & Multicast IPv4

Source Network	Netmask	Port	Rings	Multicast Groups (per ring)
RP 172.87.250.52/32				
172.87.249.0	255.255.255.240	TBU	FEEDS A Trading Ring 1	233.101.159.0/29
172.87.249.16		TBU	FEEDS A Trading Ring 2	233.101.159.8/29
172.87.249.32		TBU	FEEDS A Trading Ring 3	233.101.159.16/29
172.87.249.48		TBU	FEEDS A Trading Ring 4	233.101.159.24/29
172.87.249.64		TBU	FEEDS A Trading Ring 5	233.101.159.32/29
172.87.249.80		TBU	FEEDS A Trading Ring 6	233.101.159.40/29
172.87.249.96		TBU	FEEDS A Trading Ring 7	233.101.159.48/29
172.87.249.112		TBU	FEEDS A Trading Ring 8	233.101.159.56/29
172.87.249.128		TBU	FEEDS A Trading Ring 9	233.101.159.64/29
172.87.249.144		TBU	FEEDS A Trading Ring 10	233.101.159.72/29

IEX Options Production Environment B Feeds Unicast & Multicast IPv4

Source Network	Netmask	Port	Rings	Multicast Groups (per ring)
RP 172.87.250.60/32				
207.11.223.0	255.255.255.240	TBU	FEEDS B Trading Ring 1	233.101.159.128/29
207.11.223.16			FEEDS B Trading Ring 2	233.101.159.136/29
207.11.223.32			FEEDS B Trading Ring 3	233.101.159.144/29

207.11.223.48			FEEDS B Trading Ring 4	233.101.159.152/29
207.11.223.64			FEEDS B Trading Ring 5	233.101.159.160/29
207.11.223.80			FEEDS B Trading Ring 6	233.101.159.168/29
207.11.223.96			FEEDS B Trading Ring 7	233.101.159.176/29
207.11.223.112			FEEDS B Trading Ring 8	233.101.159.184/29
207.11.223.128			FEEDS B Trading Ring 9	233.101.159.192/29
207.11.223.144			FEEDS B Trading Ring 10	233.101.159.200/29

IEX Options Disaster Recovery Environment C Feeds Unicast & Multicast IPv4

Source Network	Netmask	Port	Rings	Multicast Groups (per ring)
RP 172.87.250.128				
207.11.194.0	255.255.255.240	TBU	FEEDS C Trading Ring 1	233.103.213.128/29
207.11.194.32			FEEDS C Trading Ring 2	233.103.213.136/29
207.11.194.64			FEEDS C Trading Ring 3	233.103.213.144/29
207.11.194.96			FEEDS C Trading Ring 4	233.103.213.152/29

Message Types

Administrative Message Types

Time (Template ID = 1)

A Time message is generated and sent immediately when a trading message occurs within a given clock second. If no trading message is present for a specific second, no Time message is sent for that period.

The Time field in the message represents the total number of whole seconds since the Epoch (midnight on January 1, 1970, UTC). All subsequent time offset fields for the same channel will reference this Time message as their base until a new Time message is received for that channel.

Field Name	Offset	Length	Type/Value	Description
SBE Header	0	8	SBE Header	SBE Header with SchemaID set as specified in SBE Header definition above, TemplateID=1
Time	8	4	UINT32	Number of whole seconds since the Epoch (midnight January 1, 1970 UTC)
Total Length = 12 Bytes				

Underlying Ref Data (Template ID = 2)

Used to provide a full start-of-day spin of all underlying symbols on which options classes are listed. The "Underlying" field in this message is referenced in the "Symbol Mapping" message that is then published for each individual series. Users should consume this message to link individual Instrument IDs to the correct MPV Group configuration dictated by the underlying symbol.

Field Name	Offset	Length	Type/Value	Description
SBE Header	0	8	SBE Header	SBE Header with SchemaID set as specified in SBE Header definition above, TemplateID=2
Time Offset	8	4	UINT32	Nanosecond offset from last Time message
Underlying ID	12	4	UINT32	Unique identifier for this underlying
Underlying Symbol	16	16	STRING(16)	ASCII string representing the underlying symbol
Exchange Code	32	1	CHAR	The market where this symbol is listed: - A – NYSE American - L – LTSE - N – NYSE - P – NYSE Arca - Q – NASDAQ - M – NYSE Texas - V – IEX - Z – CBOE - ' ' – (space or 0x20) for OTC or Index based product.
MPVGroup	33	1	MPVType	Minimum price variation for the Underlying
CloseIndicator	34	1	CloseIndicatorType	Populated with "1" at end of trading day to denote that all instruments belonging to this Underlying Symbol are closed for the trading day.
Total Length = 34 Bytes				

Symbol Mapping (Template ID = 3)

Used to map an Instrument ID to its corresponding OSI symbol and underlying asset. Each Instrument ID identifies a specific option chain. Symbol Mapping messages are included in the full start-of-day spin, with one message per Instrument ID, published on the Channel ID that will carry related messages for that instrument.

Field Name	Offset	Length	Type/Value	Description
SBE Header	0	8	SBE Header	SBE Header with SchemaID set as specified in SBE Header definition above, TemplateID=3
Time Offset	8	4	UINT32	Nanosecond offset from last Time message
Instrument ID	12	4	UINT32	Instrument ID of options series
OSI Symbol	16	32	STRING(32)	OSI Symbol of options series
Trading Ring	48	1	INT8	Trading Ring this instrument is traded within
Closing Only Series	49	1	BooleanType	False = Normal True = Closing Only
Underlying ID	50	4	UINT32	Underlying ID
Maturity Date	54	8	STRING(8)	Option Maturity Date – YYYYMMDD
Option Type	62	1	OptionType	Whether this option is a Put or Call
Strike Price	63	8	Price8	Strike price of this options series
ORP Enablement	69	1	ORPType	Status indicator of ORP protection enablement associated with this instrument
Total Length = 70 Bytes				

Instrument Clear (Template ID = 4)

Used in advance of a full state refresh for an instrument affected by a failure and recovery scenario. A Symbol Clear message directs a client to clear all state information for the specified series prior to receiving the state refresh.

Field Name	Offset	Length	Type/Value	Description
SBE Header	0	8	SBE Header	SBE Header with SchemaID set as specified in SBE Header definition above, TemplateID=4
Time Offset	8	4	UINT32	Nanosecond offset from last Time message
Instrument ID	12	4	UINT32	Instrument ID of options series
Total Length = 16 Bytes				

Trading Status (Template ID = 5)

Published every time an individual option series (as identified by its Instrument ID) has a change in its trading status.

Published at daily start of trading prior to Opening Process with Trading Status = 1 (Pre-Opening). Then published at or after 9:30am ET with Trading Status = 2 (Opening Process) when Opening Process begins for this series. Lastly, published with Trading Status = 3 (Continuous Trading) when series is opened for Continuous Trading.

In event of a regulatory halt, published with Trading Status = 0 (Halt) at time of halt. At this time, orders and quotes will still be accepted, though no trades are effected. Again published following receipt of halt conclusion in the underlying security with Trading Status = 6 (Queueing) to denote that IEX Options will evaluate this series for the Re-Open at the conclusion of the Re-Open Timer. Following timer expiration, published with Trading Status = 4 (Re-Opening Process) to indicate the Re-Opening Process is being initiated for this series. When the Re-Opening Process concludes, published with Trading Status = 3 (Continuous Trading) to indicate the series has re-opened for Continuous Trading.

In the event of a trading suspension by Market Operations, published with Trading Status = 5 (Suspended). At this time, orders and quotes are canceled back and will not be accepted on the book. When the suspension is lifted, this message is published with Trading Status = 6 (Queueing) to denote orders and quotes are again being accepted, though no trades are being effected. Message will then be published with Trading Status = 2 (Opening Process) or 4 (Re-Opening Process) to indicate the Opening / Re-Opening Process is being initiated for this series. When the Opening / Re-Opening Process concludes, published with Trading Status = 3 (Continuous Trading) to indicate the series has opened / re-opened for Continuous Trading.

Note that no Trading Status update is published for individual series at the end of the trading day. Subscribers should instead use the Underlying Ref Data message with CloseIndicator = 1 to determine that trading in a series has concluded.

Field Name	Offset	Length	Type/Value	Description
SBE Header	0	8	SBE Header	SBE Header with SchemaID set as specified in SBE Header definition above, TemplateID=5
Time Offset	8	4	UINT32	Nanosecond offset from last Time message
Instrument ID	12	4	UINT32	Instrument ID of options series
Trading Status	16	1	TradingStatusType	Current trading status for this instrument
Total Length = 17 Bytes				

Options Auction Summary (Template ID = 6)

Published at the conclusion of the Opening or Re-Opening of any options series to disseminate the results. This message will not be published for a series if the System opens on a quote.

Field Name	Offset	Length	Type/Value	Description

SBE Header	0	8	SBE Header	SBE Header with SchemaID set as specified in SBE Header definition above, TemplateID=6
Time Offset	8	4	UINT32	Nanosecond offset from last Time message
Instrument ID	12	4	UINT32	Instrument ID of options series
Auction Summary Type	16	1	AuctionType	Whether this is an opening or halt re-opening auction.
Price	17	8	Price8	Auction price
Contracts	25	4	UINT32	Cumulative number of contracts executed during the auction match
Total Length = 29 Bytes				

Options Auction Width Update (Template ID = 7)

Applies to Opening Process and Re-Opening (un-halting) Process. Will be disseminated in the event that the maximum differential has been changed by IEX Options for the underlying specified on a per underlying basis.

Field Name	Offset	Length	Type/Value	Description
SBE Header	0	8	SBE Header	SBE Header with SchemaID set as specified in SBE Header definition above, TemplateID=7
Time Offset	8	4	UINT32	Nanosecond offset from last Time message
Underlying ID	12	4	UINT32	Underlying ID
Quote Relief Multiplier	16	4	UINT8	Integer multiplier. Reflects the multiplier to be applied to the maximum allowable bid-ask differential for the Legal Width Quote for the Opening / Re-Opening process on instruments for the Underlying ID specified.
Total Length = 20 Bytes				

Common Trading Message Types

Liquidity Event Notification (Template ID = 8)

Used to disseminate order details of a liquidity event. These events are only available for a defined period of time, known as the exposure period.

Field Name	Offset	Length	Type/Value	Description
SBE Header	0	8	SBE Header	SBE Header with SchemaID set as specified in SBE Header definition above, TemplateID=8

Time Offset	8	4	UINT32	Nanosecond offset from last Time message
Instrument ID	12	4	UINT32	Instrument ID of options series
Event ID	16	4	UINT32	Day-specific identifier assigned to this liquidity event
Liquidity Event Type	20	1	LiquidityEventType	Type of Liquidity Event
Side	21	1	SideType	The side of this liquidity event
Price	22	8	Price8	When Auction Type = SUM, Price = NBBO price of opposite side of liquidity event at the time of entry.
Contracts	30	4	UINT32	Number of contracts available in the liquidity event.
Capacity	34	1	CustIndType	Capacity specified with the liquidity event
Participant ID	35	4	STRING(4)	Executing Broker (optional) of firm attributed to this quote
Event End Offset	39	4	UINT32	End time of event, offset from last Time message
Total Length = 43 Bytes				

Liquidity Event Execution (Template ID = 9)

Used to disseminate executions resulting from a liquidity event. Multiple Liquidity Event Executions may be published for a single Liquidity Event in the case of multiple fills.

Field Name	Offset	Length	Type/Value	Description
SBE Header	0	8	SBE Header	SBE Header with SchemaID set as specified in SBE Header definition above, TemplateID=9
Time Offset	8	4	UINT32	Nanosecond offset from last Time message
Instrument ID	12	4	UINT32	Instrument ID of options series
Event ID	16	8	UINT32	Day-specific identifier assigned to this liquidity event
Trade ID	24	8	UINT64	Day-specific identifier assigned to this execution
Price	32	8	Price8	Trade price
Contracts	40	4	UINT32	Number of contracts traded
Total Length = 44 Bytes				

Liquidity Event Cancel (Template ID = 10)

Used to disseminate the cancellation or conclusion of a liquidity event. This can occur because of user cancelation of the original order for which the liquidity event was triggered, a user modification that changed the price or increased the original order quantity (which will trigger the publication of another Liquidity Event Notification), a fading of the NBBO, or to cancel any remaining order quantity following the liquidity event termination. Note that a Liquidity Event Cancel is not published in the event that the full order quantity of the order triggering the liquidity event is filled.

Field Name	Offset	Length	Type/Value	Description
SBE Header	0	8	SBE Header	SBE Header with SchemaID set as specified in SBE Header definition above, TemplateID=10
Time Offset	8	4	UINT32	Nanosecond offset from last Time message
Instrument ID	12	4	UINT32	Instrument ID of options series
Event ID	16	8	UINT32	Day-specific identifier assigned to this liquidity event
Total Length = 24 Bytes				

REVISION HISTORY

Version	Date	Change
1.00	February 5, 2026	Initial publication of document.