



NYSE BEST QUOTE AND TRADES CLOUD STREAMING CLIENT SPECIFICATION

NYSE
NYSE AMERICAN
NYSE ARCA
NYSE CHICAGO
NYSE NATIONAL

Version
1.1

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PREFACE

DOCUMENT HISTORY

| VERSION | DATE | CHANGE DESCRIPTION |
|---------|---------------|---|
| 1.0 | May 13, 2024 | Initial spec publication for NYSE BQT Cloud Streaming |
| 1.1 | July 25, 2024 | Added Group information to section 1.2.1 NYSE BQT Kafka Topics Updated example in section 7 BQT Trading Status for 2:00am ET feed start time |

REFERENCE MATERIAL

The following lists the associated documents, which either should be read in conjunction with this document or which provide other relevant information for the user:

- [NYSE Symbology](#)

CONTACT INFORMATION

Service Desk

- Telephone: +1 212 896-2830
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FURTHER INFORMATION

For additional information about the product, visit the [NYSE BQT Product Page](#)

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1. Connecting to NYSE Cloud Streaming

1.1 HOW TO CONNECT

1.1.1 Privatelink

More details on connecting to NYSE Kafka clusters for various environments can be found below:

- [How to connect](#) to NYSE Kafka cluster in Load Test Environment
- [How to connect](#) to NYSE Kafka cluster in Production Environment

1.2 KAFKA TOPICS

1.2.1 NYSE BQT Kafka Topics

East-1 Region

| CHANNEL | TOPIC | GROUP | PARTITION | TYPE | PROTO MESSAGE | RECOMMENDED BANDWIDTH |
|-------------------------|---------------|-------------------|-----------|--------|---|-----------------------|
| Trade | bqt_trd_str_1 | bqt_trd_str_1_GRP | 0 | Stream | Trade, TradeCorrection, TradeCancelBust, TrfPriorDayTrade, TrfPriorDayTradeCancel | 0.5MB/sec |
| Quote | bqt_qte_str_1 | bqt_qte_str_1_GRP | 0 | Stream | Quote, SingleSidedQuote | 1MB/sec |
| Quote | bqt_qte_str_2 | bqt_qte_str_2_GRP | 0 | Stream | Quote, SingleSidedQuote | 1MB/sec |
| Quote | bqt_qte_str_3 | bqt_qte_str_3_GRP | 0 | Stream | Quote, SingleSidedQuote | 1MB/sec |
| Quote | bqt_qte_str_4 | bqt_qte_str_4_grp | 0 | Stream | Quote, SingleSidedQuote | 1MB/sec |
| Stock Summary | ssm_cvol_str | ssm_cvol_str_GRP | 0 | Stream | StockSummary | 0.2MB/sec |
| CTA Consolidated Volume | ssm_cvol_str | ssm_cvol_str_GRP | 1 | Stream | ConsolidatedVolume | 1MB/sec |
| CTA Consolidated Volume | ssm_cvol_str | ssm_cvol_str_GRP | 2 | Stream | ConsolidatedVolume | 1MB/sec |
| CTA Consolidated Volume | ssm_cvol_str | ssm_cvol_str_GRP | 3 | Stream | ConsolidatedVolume | 1MB/sec |
| CTA Consolidated Volume | ssm_cvol_str | ssm_cvol_str_GRP | 4 | Stream | ConsolidatedVolume | 1MB/sec |
| UTP Consolidated Volume | ssm_cvol_str | ssm_cvol_str_GRP | 5 | Stream | ConsolidatedVolume | 1MB/sec |
| UTP Consolidated Volume | ssm_cvol_str | ssm_cvol_str_GRP | 6 | Stream | ConsolidatedVolume | 1MB/sec |

| CHANNEL | TOPIC | GROUP | PARTITION | TYPE | PROTO MESSAGE | RECOMMENDED BANDWIDTH |
|-------------------------|--------------|------------------|-----------|--------|--------------------|-----------------------|
| UTP Consolidated Volume | ssm_cvol_str | ssm_cvol_str_GRP | 7 | Stream | ConsolidatedVolume | 1MB/sec |
| UTP Consolidated Volume | ssm_cvol_str | ssm_cvol_str_GRP | 8 | Stream | ConsolidatedVolume | 1MB/sec |

2. NYSE CLOUD STREAMING BQT Message Structures

2.1 OVERVIEW

NYSE BQT is a real-time market data product that provides a consolidated view of the Best Bid & Offer and Trades for all equities and ETPs traded on the NYSE Group equities markets (NYSE, NYSE American, NYSE Arca, NYSE Chicago and NYSE National), as well as the ATS trades published by the NYSE Trade Reporting Facility.

NYSE BQT is especially useful for portfolio managers, wealth managers, online brokerages, and back office employees who need a real time source of indicative prices for US securities.

NYSE BQT consists of the following independent data feeds:

1. **Best Quotes (BBO)**, derived from the BBO feeds of the NYSE Group exchanges
2. **Trades**, derived from the Trades feeds of the NYSE Group exchanges and NYSE TRF
3. **Consolidated Volume**, derived from the SIP (CTA and UTP) Trades datafeeds
4. **Stock Summary**, derived from the underlying bbo trades and sip dataset

To view the individual client specifications for the proprietary feeds that serve as the input for BQT, see the website for the [NYSE Group proprietary data feeds](#).

2.2 FORMAT

The messages within this feed are protocol buffer format. Unless noted otherwise, fields within the messages should be considered as optional. Details of the corresponding proto file containing all messages outlined in this specification can be found [here](#). Format details below:

- uint64 - 64 bit unsigned integer
- uint32 - 32 bit unsigned integer
- double - double precision floating point type
- string - UTF - 8 encoded or 7-bit ASCII text

2.3 CONTROL MESSAGE TYPES

The set of control messages used in NYSE BQT.

| DESCRIPTION |
|--------------------------------------|
| Symbol Index Mapping Message |
| Consolidated Symbol Clear Message |
| Consolidated Security Status Message |

3. Common Client Messages

3.1 SYMBOL INDEX MAPPING MESSAGE

This message is published at system startup or in the context of a refresh sequence after a Matching Engine or XDP Publisher failover. It provides referential data for a single specified symbol.

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|------------------------------|--------------|--------|---|
| Feed Message Sequence | feedmsgseq | uint64 | The unique ID of this message |
| Symbol Index | symbolid | uint32 | The unique ID of this symbol. Provided for reference only. Not needed to process feed messages |
| Symbol | symbol | string | Symbol for this message. Null-terminated ASCII symbol in NYSE Symbology . |
| Market ID | marketid | string | ID of the Originating Market: <ul style="list-style-type: none"> • none – NYSE Group (BQT) • nyse_cash – NYSE • nyse_arca_cash – NYSE Arca • nyse_mkt_cash – NYSE American • nyse_national_cash – NYSE National • nyse_chx - NYSE Chicago • nyse_trf - NYSE TRF |
| System ID | systemid | uint32 | ID of the Originating matching engine server. |
| Exchange Code | exchcode | string | For listed equity markets, the market where this symbol is listed: <ul style="list-style-type: none"> ▪ XASE – NYSE American ▪ LTSE- LTSE ▪ XNYS – NYSE ▪ ARCX – NYSE Arca ▪ XNAQ – NASDAQ ▪ IEXG - IEX ▪ BATZ – BATS |
| Price Scale Code | pricescale | uint32 | Only for reference. Not needed to process feed messages |
| Security Type | securitytype | string | Type of Security used by Pillar-powered markets - Arca, National, American, NYSE and Chicago: <ul style="list-style-type: none"> ▪ american_depository_receipts ▪ common_stock ▪ debentures ▪ exchange_traded_funds ▪ foreign ▪ american_depository_shares ▪ units_i ▪ index_linked_notes ▪ misc ▪ ordinary ▪ preferred ▪ rights ▪ shares_beneficiary_interest ▪ test ▪ units_u ▪ warrant |
| Lot Size | lotsize | uint32 | Round lot size in shares. |

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|-------------------------|---------------|--------|--|
| PrevClosePrice | precloseprice | double | The previous day's closing price for this security. |
| PrevCloseVolume | preclosevol | uint32 | The previous day's closing volume for the security. |
| Price Resolution | priceres | string | <ul style="list-style-type: none"> ▪ all_penny ▪ penny_nickel ▪ nickel_dime |
| Round Lot | roundlotac | string | Round Lots Accepted: <ul style="list-style-type: none"> ▪ yes ▪ no |
| MPV | mpv | double | The minimum increment for a trade price, in 100ths of a cent. Typically 1, or \$0.0001, but for some Tick Pilot stocks, can be 500, or \$0.05. |
| Unit of Trade | unitoftrade | uint32 | This field specifies the security Unit of Trade in shares. Valid values are 1, 10, 50 and 100 |

3.2 SECURITY STATUS MESSAGE

This message informs clients of changes in the status of a specific security, such as Trading Halts, Short Sale Restriction state changes, etc.

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|------------------------------|----------------|--------|--|
| Feed Message Sequence | feedmsgseq | uint64 | The unique ID of this message |
| SourceTime | sourcetime | uint64 | The time when this msg was generated in the order book, in nanoseconds since Jan 1, 1970 00:00:00 UTC. |
| Symbol | symbol | string | Symbol for this message. |
| Security Status | securitystatus | string | <p>The new status that this security is transitioning to.</p> <p>The following are Halt Status Codes:</p> <ul style="list-style-type: none"> ▪ trading_halt ▪ resume ▪ suspend <p>The following are Short Sale Restriction Codes (published for all symbols traded on this exchange):</p> <ul style="list-style-type: none"> ▪ ssr_activated ▪ ssr_continued ▪ ssr_deactivated <p>Market Session values:</p> <ul style="list-style-type: none"> ▪ begin_accepting_orders ▪ pre_opening ▪ early ▪ core ▪ late ▪ closed <p>If this security is not halted at the time of a session change, the Halt Condition field = ~. If this security is halted on a session change, Halt Condition is non-~, and the security remains halted into the new session.</p> <p>The following values are the Price Indication values:</p> <ul style="list-style-type: none"> ▪ price_indication ▪ pre_op_price_indication |
| Halt Condition | haltcond | string | <ul style="list-style-type: none"> ▪ not_applicable ▪ not_halted ▪ news_dissemination ▪ order_imbalance ▪ news_pending ▪ luld_pause ▪ equipment_changeover ▪ additional_information_requested ▪ regulatory_concern ▪ merger_effective ▪ etf_price_not_available ▪ corporate_action ▪ new_security_offering ▪ intra_indicative_value_not_available ▪ suspend <p>Market Wide Circuit Breakers:</p> <ul style="list-style-type: none"> ▪ mwcb1 ▪ mwcb2 |

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|-----------------------------------|-----------|--------|---|
| | | | <ul style="list-style-type: none"> mwcb3 |
| Market ID | marketid | string | ID of the Originating Market: <ul style="list-style-type: none"> nyse_group – NYSE Group (BQT) nyse_cash – NYSE nyse_arca_cash – NYSE Arca nyse_mkt_cash – NYSE American nyse_national_cash – NYSE National nyse_chx - NYSE Chicago nyse_trf - NYSE TRF |
| Price 1 | price1 | double | Default value is 0. <ul style="list-style-type: none"> If securityStatus = <code>ssr_activated</code> and this security is listed on this exchange, then this field is the SSR Triggering Trade Price If securityStatus = <code>price_indication</code> or <code>pre_op_price_indication</code>, then this field is the Indication Low Price. |
| Price 2 | price2 | double | Default value is 0 <ul style="list-style-type: none"> If securityStatus = <code>price_indication</code> or <code>pre_op_price_indication</code>, then this field is the Indication High Price. |
| SSR Triggering Exchange ID | ssrexch | string | This field is only populated when securityStatus = A and this security is listed on this exchange. Otherwise it is defaulted to 0x20. Valid values are: <ul style="list-style-type: none"> nyse_mkt nasdaq_omx_bx nsx finra miami_pearl ise edga edgx ltse nyse_chx nyse nyse_arca nasdaq cts nasdaq_omx memx iex cbsx nasdaq_omx_psx bats_y bats |
| SSR Triggering Volume | ssrvol | uint32 | Default value is 0. This field is only populated when securityStatus = <code>ssr_activated</code> and this security is listed on this exchange |
| Time | time | uint32 | Default value is 0. Format : HHMMSSmmm (mmm = milliseconds) |

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|--------------------|-------------|--------|---|
| | | | <ul style="list-style-type: none"> ▪ If securityStatus = ssr_activated and this security is listed on this exchange, then this field is the SSR Trigger Time |
| SSRState | ssrstate | string | <p>The current SSR state, which this msg updates if the Security Status field contains an SSR Code. Valid values:</p> <ul style="list-style-type: none"> ▪ not_in_effect ▪ in_effect |
| MarketState | marketstate | string | <p>The current Market State, which this msg updates if the Security Status field contains a Market State Code. Valid values:</p> <ul style="list-style-type: none"> ▪ pre_opening ▪ early ▪ core ▪ late ▪ closed |

3.3 SYMBOL CLEAR MESSAGE

In case of a failure and recovery of a Matching Engine or an XDP Publisher, the publisher may send a full state refresh for every symbol affected. This kind of unrequested refresh is preceded by a Symbol Clear message. The client should react to receipt of a Symbol Clear message by clearing all state information for the specified symbol in anticipation of receiving a full state refresh.

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|------------------------------|---------------|--------|--|
| Feed Message Sequence | feedmsgseq | uint64 | The unique ID of this message |
| SourceTime | sourcetime | uint64 | The time when this msg was generated in the order book, in nanoseconds since Jan 1, 1970 00:00:00 UTC. |
| Symbol | symbol | string | The unique ID of the symbol in the Symbol Index msg |
| NextSourceSeqNum | nextsourceseq | uint32 | The sequence number in the next message for this symbol |
| Market ID | marketid | string | ID of the Originating Market: <ul style="list-style-type: none"> nyse_group – NYSE Group (BQT) nyse_cash – NYSE nyse_arca_cash – NYSE Arca nyse_mkt_cash – NYSE American nyse_national_cash – NYSE National nyse_chx - NYSE Chicago nyse_trf - NYSE TRF |

4. BQT Quote Messages

4.1 NYSE BQT QUOTE

The BQT Quotes data includes best bid and offer information from the underlying NYSE Group BBO feeds:

- [New York Stock Exchange LLC \(NYSE\) BBO datafeed](#)
- [NYSE Arca, Inc. \(NYSEArca\) BBO datafeed](#)
- [NYSE American LLC \(NYSEAMER\) BBO datafeed](#)
- [NYSE Chicago, Inc. \(NYSECHX\) BBO datafeed](#)
- [NYSE National, Inc. \(NYSENAT\) BBO datafeed](#)

The following criteria applies for determining the best quote:

- Price: the exchange with the highest bid or the lowest offer has overall priority;
- Size: the largest size takes precedence when multiple exchanges submit the same bid and/or offer price; and
- Time: the earliest time takes precedence when multiple exchanges submit the same bid and/or offer price with the same sizes.

4.2 BEST QUOTES MESSAGE

This message is sent when an event causes a change in one or both sides of the BBO. The output shows changes to BBO only. Individual market quotes that do not affect the BBO are not disseminated.

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|---------------------------------|----------------------|--------|---|
| Feed Message Sequence | feedmsgseq | uint64 | The unique ID of this message |
| Symbol | symbol | string | Symbol for this message |
| Ask Price | askprice | double | The Ask price. Use the Price scale from the symbol mapping index. |
| Ask Volume | askvolume | uint32 | The Ask size. |
| Bid Price | bidprice | double | The Bid price. Use the Price scale from the symbol mapping index. |
| Bid Volume | bidvolume | uint32 | The Bid size. |
| Ask Quote Condition | askcondition | string | <ul style="list-style-type: none"> • closing - Closing • opening_quote - Opening Quote • regular_quote - Regular Quote • slow_bid_and_ask_set_slow - Slow on the Bid and Ask due to Set Slow List |
| Bid Quote Condition | bidcondition | string | <ul style="list-style-type: none"> • closing - Closing • opening_quote - Opening Quote • regular_quote - Regular Quote • slow_bid_and_ask_set_slow - Slow on the Bid and Ask due to Set Slow List |
| Retail Pricing Indicator | retailpriceindicator | string | <ul style="list-style-type: none"> • none - No Retail Interest • bid - Retail Interest on the Bid side • offer - Retail Interest on the Ask side • both - Retail Interest on Bid & Ask side |
| Market ID of Best Ask | askmarketid | string | The ID of the Originating Market: <ul style="list-style-type: none"> • nyse_group – NYSE Group (BQT) |

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|------------------------------|-------------|--------|---|
| | | | <ul style="list-style-type: none"> • nyse_cash – NYSE • nyse_arca_cash – NYSE Arca • nyse_mkt_cash – NYSE American • nyse_national_cash – NYSE National • nyse_chx - NYSE Chicago |
| Market ID of Best Bid | bidmarketid | string | The ID of the Originating Market: <ul style="list-style-type: none"> • nyse_group – NYSE Group (BQT) • nyse_cash – NYSE • nyse_arca_cash – NYSE Arca • nyse_mkt_cash – NYSE American • nyse_national_cash – NYSE National • nyse_chx - NYSE Chicago |

4.3 CONSOLIDATED SINGLE-SIDED QUOTE MESSAGE

This message is sent when an event causes a change in only one side of a BBO.

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|---------------------------------|----------------------|--------|--|
| Feed Message Sequence | feedmsgseq | uin64 | The unique ID of this message |
| Symbol | symbol | string | Symbol for this message |
| Side | side | string | The side of the order - Buy/Sell. Valid values: <ul style="list-style-type: none"> • 'B' – Buy • 'S' – Sell (Offer) |
| Price | price | double | The price. Use the PriceScaleCode in the Symbol Mapping message. |
| Volume | volume | uint32 | The order quantity in shares. |
| Quote Condition | condition | string | <ul style="list-style-type: none"> • closing - Closing • opening_quote - Opening Quote • regular_quote - Regular Quote • slow_bid_and_ask_set_slow - Slow on the Bid and Ask due to Set Slow List • na - empty quote (there is no BBO available for the given instrument) |
| Retail Pricing Indicator | retailpriceindicator | string | <ul style="list-style-type: none"> • none - No Retail Interest • bid - Retail Interest on the Bid side • offer - Retail Interest on the Ask side • both - Retail Interest on Bid & Ask side |
| Market ID | marketid | string | The ID of the Originating Market: <ul style="list-style-type: none"> • nyse_group – NYSE Group (BQT) • nyse_cash – NYSE • nyse_arca_cash – NYSE Arca • nyse_mkt_cash – NYSE American • nyse_national_cash – NYSE National • nyse_chx - NYSE Chicago |

5. BQT Trade Messages

BQT Trades Data includes last sale information from the underlying NYSE Group Trades feeds:

- [New York Stock Exchange LLC \(NYSE\) Trades datafeed](#)
- [NYSE Arca, Inc. \(NYSEArca\) Trades datafeed](#)
- [NYSE American LLC \(NYSEAMER\) Trades datafeed](#)
- [NYSE Chicago, Inc. \(NYSECHX\) Trades datafeed](#)
- [NYSE National, Inc. \(NYSENAT\) Trades datafeed](#)

Furthermore, BQT includes trades reported by FINRA/NYSE Trade Reporting Facility (“TRF”).

The BQT Trade messages feed are the same Trade messages published to the Securities Information Processor (SIP) by the originating NYSE Group exchange and the NYSE Trade Reporting Facility.

All Trades are passed through and marked with the originating Market ID.

5.1 CONSOLIDATED TRADE MESSAGE

The following message structure applies to the Trade message.

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|------------------------------|-----------------|--------|--|
| Feed Message Sequence | feedmsgseq | uint64 | The unique ID of this message |
| Source Time | sourcetime | uint64 | The time when this msg was generated in the order book, in nanoseconds since Jan 1, 1970 00:00:00 UTC. |
| Symbol | symbol | string | Symbol for this message |
| Trade ID | tradeid | uint32 | The unique Trade ID assigned by the source system |
| Price | price | double | The price of the trade. Use the Price scale from the Symbol Mapping msg. |
| Volume | volume | uint32 | Volume of the trade. |
| Trade Condition 1 | tradecondition1 | string | Settlement related conditions. <ul style="list-style-type: none"> • regular_sale – Regular Sale • regular_sale_trf - Regular Sale (TRF only) • cash – Cash • next_day_trade– Next Day Trade • seller – Seller |
| Trade Condition 2 | tradecondition2 | string | The reason for Trade Through Exemptions. <ul style="list-style-type: none"> • na – N/A • intermarket_sweep_order – Intermarket Sweep Order • opening_trade – Market Center Opening Trade • derivatively_priced - Derivatively priced (TRF) • reopening_trade – Market Center Reopening Trade • closing_trade – Market Center Closing Trade • qct_order_execution - Qualified Contingent Trade (TRF) |

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|--------------------------|-----------------|--------|--|
| | | | <ul style="list-style-type: none"> corrected_cons_close_price – Corrected Last Sale Price |
| Trade Condition 3 | tradecondition3 | string | Extended hours/sequencing related conditions <ul style="list-style-type: none"> na – N/A sold_last - Sold Last extended_hours_trade – Extended Hours Trade extended_hours_sold – Extended Hours Sold (Out of Sequence) sold – Sold |
| Trade Condition 4 | tradecondition4 | string | SRO Required Detail. <ul style="list-style-type: none"> regular_sale – Regular Sale na – N/A odd_lot_trade – Odd Lot Trade official_closing_price – Official Closing Price official_open_price – Official Open Price contingent_trade - Contingent Trade prior_ref_price - Prior Reference Price (TRF) weighted_average_price - Weighted Average Price (TRF) |
| Market ID | marketid | string | The ID of the Originating Market: <ul style="list-style-type: none"> nyse_group – NYSE Group (BQT) nyse_cash – NYSE nyse_arca_cash – NYSE Arca nyse_mkt_cash – NYSE American nyse_national_cash – NYSE National nyse_chx - NYSE Chicago nyse_trf - NYSE TRF |

5.2 CONSOLIDATED TRADE CANCEL MESSAGE

This message is published when a trade is cancelled.

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|------------------------------|-------------|--------|--|
| Feed Message Sequence | feedmsgseq | uint64 | The unique ID of this message |
| Source Time | sourcetime | uint64 | The time when this msg was generated in the order book, in nanoseconds since Jan 1, 1970 00:00:00 UTC. |
| Symbol | symbol | string | Symbol for this message |
| Original Trade ID | origtradeid | uint32 | The original Trade ID of trade being cancelled. |
| Market ID | marketid | string | The ID of the Originating Market: <ul style="list-style-type: none"> nyse_group – NYSE Group (BQT) nyse_cash – NYSE nyse_arca_cash – NYSE Arca nyse_mkt_cash – NYSE American nyse_national_cash – NYSE National nyse_chx - NYSE Chicago nyse_trf - NYSE TRF |

5.3 CONSOLIDATED TRADE CORRECTION MESSAGE

This message is published when a trade is corrected.

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|------------------------------|-----------------|--------|---|
| Feed Message Sequence | feedmsgseq | uint64 | The unique ID of this message |
| Source Time | sourcetime | uint64 | The time when this msg was generated in the order book, in nanoseconds since Jan 1, 1970 00:00:00 UTC. |
| Symbol | symbol | string | Symbol for this message |
| Original Trade ID | origtradeid | uint32 | The ID of the Trade being corrected. |
| Trade ID | tradeid | uint32 | The Trade ID identifies a unique Trade execution. |
| Price | price | double | The price of the trade. Use the Price scale from the symbol mapping index. |
| Volume | volume | uint32 | Volume of the trade. |
| Trade Condition 1 | tradecondition1 | string | Settlement related conditions. <ul style="list-style-type: none"> regular_sale – Regular Sale regular_sale_trf - Regular Sale (TRF only) cash – Cash next_day_trade– Next Day Trade seller – Seller |
| Trade Condition 2 | tradecondition2 | string | The reason for Trade Through Exemptions. <ul style="list-style-type: none"> na – N/A intermarket_sweep_order – Intermarket Sweep Order opening_trade – Market Center Opening Trade derivatively_priced - Derivatively priced (TRF) reopening_trade – Market Center Reopening Trade closing_trade – Market Center Closing Trade qct_order_execution - Qualified Contingent Trade (TRF) corrected_cons_close_price – Corrected Last Sale Price |
| Trade Condition 3 | tradecondition3 | string | Extended hours/sequencing related conditions <ul style="list-style-type: none"> na – N/A sold_last - Sold Last extended_hours_trade – Extended Hours Trade extended_hours_sold – Extended Hours Sold (Out of Sequence) sold – Sold |
| Trade Condition 4 | tradecondition4 | String | SRO Required Detail. <ul style="list-style-type: none"> regular_sale – Regular Sale na – N/A odd_lot_trade – Odd Lot Trade official_closing_price – Official Closing Price official_open_price – Official Open Price contingent_trade - Contingent Trade prior_ref_price - Prior Reference Price (TRF) |

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|------------------|-----------|--------|--|
| | | | <ul style="list-style-type: none"> weighted_average_price - Weighted Average Price (TRF) |
| Market ID | marketid | string | <p>The ID of the Originating Market:</p> <ul style="list-style-type: none"> nyse_group – NYSE Group (BQT) nyse_cash – NYSE nyse_arca_cash – NYSE Arca nyse_mkt_cash – NYSE American nyse_national_cash – NYSE National nyse_chx - NYSE Chicago nyse_trf - NYSE TRF |

5.4 TRF PRIOR DAY TRADE MESSAGE

If a TRF participant firm fails to report a trade on the day in which it occurs, the firm may report the trade on a subsequent day by publishing a Prior Day Trade message. The message structure is as follows:

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|------------------------------|-----------------|--------|---|
| Feed Message Sequence | feedmsgseq | uint64 | The unique ID of this message |
| Source Time | sourcetime | uint64 | The time when this msg was generated in the order book, in nanoseconds since Jan 1, 1970 00:00:00 UTC. |
| Symbol | symbol | string | Symbol for this message |
| Trade ID | tradeid | u32int | Unique identifier for this trade. |
| Price | price | double | The price of the Trade. Use the Price scale from the Symbol Index Mapping message. |
| Volume | volume | uint32 | The volume of the trade in shares. |
| Trade Condition 1 | tradecondition1 | string | Settlement related conditions. <ul style="list-style-type: none"> regular_sale – Regular Sale regular_sale_trf - Regular Sale (TRF only) cash – Cash next_day_trade– Next Day Trade seller – Seller |
| Trade Condition 2 | tradecondition2 | string | The reason for Trade Through Exemptions. <ul style="list-style-type: none"> na – N/A intermarket_sweep_order – Intermarket Sweep Order opening_trade – Market Center Opening Trade derivatively_priced - Derivatively priced (TRF) reopening_trade – Market Center Reopening Trade closing_trade – Market Center Closing Trade qct_order_execution - Qualified Contingent Trade (TRF) corrected_cons_close_price – Corrected Last Sale Price |
| Trade Condition 3 | tradecondition3 | string | Extended hours/sequencing related conditions <ul style="list-style-type: none"> na – N/A sold_last - Sold Last extended_hours_trade – Extended Hours Trade extended_hours_sold – Extended Hours Sold (Out of Sequence) sold – Sold |
| Trade Condition 4 | tradecondition4 | string | SRO Required Detail. <ul style="list-style-type: none"> regular_sale – Regular Sale na – N/A odd_lot_trade – Odd Lot Trade official_closing_price – Official Closing Price official_open_price – Official Open Price contingent_trade - Contingent Trade prior_ref_price - Prior Reference Price (TRF) |

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|---------------------|--------------|--------|--|
| | | | <ul style="list-style-type: none"> weighted_average_price - Weighted Average Price (TRF) |
| PriorDayTime | priordaytime | uint64 | The date and time when this Trade occurred at the participant firm, in nanoseconds since Jan 1, 1970 00:00:00 UTC. |

5.5 TRF PRIOR DAY TRADE CANCEL MESSAGE

If a TRF participant firm discovers that it has reported a trade with an inaccurate price or volume on a previous day, the firm may correct the trade on a subsequent day by publishing a Prior Day Trade Cancel message, followed by a Prior Day Trade. The message structure is as follows:

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|------------------------------|--------------|--------|--|
| Feed Message Sequence | feedmsgseq | uint64 | The unique ID of this message |
| Source Time | sourcetime | uint64 | The time when this msg was generated in the order book, in nanoseconds since Jan 1, 1970 00:00:00 UTC. |
| Symbol | symbol | string | Symbol for this message |
| TradeID | tradeid | uint32 | Unique identifier for this trade. |
| Price | price | double | The price of the Trade being cancelled. Use the Price Scale Code from the Symbol Index Mapping message. |
| Volume | volume | uint32 | The volume of the Trade being cancelled. |
| PriorDayTime | priordaytime | uint64 | The date and time when original Trade being cancelled occurred at the participant firm, in nanoseconds since Jan 1, 1970 00:00:00 UTC. |

5.6 CONSOLIDATED STOCK SUMMARY MESSAGE

The stock summary message is sent every 1 minute, after a security is Open. Any data sourced from CTA/UTP SIP is delayed consistent with the requirements for redistributing such data as set forth in the securities information processor plans.

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|---|---------------------|--------|---|
| Feed Message Sequence | feedmsgseq | uint64 | The unique ID of this message |
| Source Time | sourcetime | uint64 | The time when this msg was generated in the order book, in nanoseconds since Jan 1, 1970 00:00:00 UTC. |
| Symbol | symbol | string | Symbol for this message |
| NYSE Group High Price | hiprice | double | The High price of the stock for the day. Use the Price scale from the symbol mapping index. |
| NYSE Group Low Price | loprice | double | The Low price of the stock for the day. Use the Price scale from the symbol mapping index. |
| Primary Listing Market Official Open Price | listingmktopenprice | double | The Opening price of the stock for the day received from the listing market. If there is no official opening price received from the listing market, the Open Price will default to "none". Note: Non-NYSE Group Primary Listing Market Prices are sourced from CTA/UTP SIP |
| NYSE Group Volume | grpvol | uint32 | The cumulative volume for the stock during the day. |
| NYSE Group Market ID of High Price | mktofhiprice | string | The ID of the Originating Market: <ul style="list-style-type: none"> • none – Default • nyse_cash – NYSE • nyse_arca_cash – NYSE Arca • nyse_mkt_cash – NYSE American • nyse_national_cash – NYSE National • nyse_chx - NYSE Chicago • nyse_trf - NYSE TRF |
| NYSE Group Market ID of Low Price | mktofloprice | string | The ID of the Originating Market: <ul style="list-style-type: none"> • none – Default • nyse_cash – NYSE • nyse_arca_cash – NYSE Arca • nyse_mkt_cash – NYSE American • nyse_national_cash – NYSE National • nyse_chx - NYSE Chicago • nyse_trf - NYSE TRF |
| Market ID of Open Price | mktofopenprice | string | The ID of the Originating Market: <ul style="list-style-type: none"> • none – Default • primary_listing_mkt - Primary Listing Market |
| Num Close Prices | numclsprice | uint32 | The number of Market ID/Closing Price pairs. Values can be 0 – 1. |
| NYSE Group Market ID of the Close | mktofcloseprice | string | The ID of the Originating Market: <ul style="list-style-type: none"> • none – Default • primary_listing_mkt - Primary Listing Market |

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|--|----------------------|--------|--|
| Primary Listing Market Official Close Price | listingmktcloseprice | double | <p>The Official Close Price of the stock for the day for the originating market captured in the preceding Market ID field.</p> <p>Note: Non-NYSE Group Primary Listing Market Prices are sourced from CTA/UTP SIP</p> |
| Consolidated High Price | conshiprice | double | <p>The highest price of any high/low eligible transaction on Tapes A, B or C received on the trading day.</p> <p>This field will be blank on all message publications until end of day summary data is received from CTA/UTP SIP</p> |
| Consolidated Low Price | consloprice | double | <p>The lowest price of any high/low eligible transaction on Tapes A, B or C received on the trading day.</p> <p>This field will be blank on all message publications until end of day summary data is received from CTA/UTP SIP</p> |
| Consolidated First Price | consfirstprice | double | <p>The price of the first last sale eligible transaction on Tapes A, B, or C received on the trading day</p> <p>This field will be blank on all message publications until the end of day summary data is received from CTA/UTP SIP</p> |
| Consolidated Last Price | conslastprice | double | <p>The price of the final last sale eligibel transaction on Tapes A, B, or C received on the trading day.</p> <p>This field will be blank on all message publications until the end of day summary data is received from CTA/UTP SIP</p> |
| Complete | complete | string | <ul style="list-style-type: none"> • normal • unrecoverable_gap |

6. BQT Consolidated Volume

The consolidated volume channel carries consolidated volume for all listed equities in a manner consistent with the requirements for redistributing such data as set forth in the securities information processor plans.

The Consolidated Volume feed publishes Consolidated Volume Message and Consolidated Security Status Message.

Symbol Index Messages are not published on these channels.

6.1 CONSOLIDATED VOLUME MESSAGE

| FIELD NAME | PROTO KEY | FORMAT | DESCRIPTION |
|------------------------------|------------|--------|--|
| Feed Message Sequence | feedmsgseq | uin64 | The unique ID of this message |
| Symbol | symbol | string | Symbol for this message |
| Consolidated Volume | consvol | uint64 | The cumulative volume for the stock throughout the day. |
| Reason | reason | string | Reason for this update <ul style="list-style-type: none"> • new • trade_canc • trade_err • trade_corr • closing |
| Complete | complete | string | <ul style="list-style-type: none"> • normal • unrecoverable_gap |

7. BQT Trading Status

NYSE BQT provides quotes and trades in alignment with the NYSE Group Trading hours.

| | Exchange | Quotes and Trading (EST) | Included in BQT |
|---|-----------------|--|-----------------|
| 1 | NYSE Arca | Quotes and Trades starts with early session at 4am | Yes |
| 2 | NYSE Chicago | Quotes and Trades Starts with early session at 7am | Yes |
| 3 | NSE American | Quotes and Trades Starts with early session at 7am | Yes |
| 4 | NYSE National | Quotes and Trades Starts with early session at 7am | Yes |
| 5 | NYSE Tapes B/C | Quotes and Trades Starts with early session at 7am | Yes |
| 6 | NYSE Tape A | Quotes and Trades Starts with core session at 9:30am | Yes |
| 7 | NYSE TRF Trades | No Quoting. Trading session is 8am - 8pm | Yes |

1. NYSE BQT provides security status in alignment with the NYSE Group Trading hours.

For example, on the NYSE Arca Pillar platform (Tape A + Tape B + Tape C)

- 'P' at ~2:03am (feed start time)
- 'B' at 2:30am (order entry gateways are open)
- 'E' at 4:00am (start of trading and quoting)
- 'O' at 9:30am (after 9:30am core transition)
- 'L' at 4:00pm (late session start)
- 'X' at 8:00pm (end of day)

2. Consolidated Volume messages sourced from the SIPs (CTA and UTP) start at 4:00am EST.
3. Please note that NYSE (Tape A) primary listed securities only publish quotes and trades during core hours.