UTP Participant Input Specification

Version 2.0a
Revised - Fractional Share Trade Reporting Enhancement

April 2024

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1   Overview

The Unlisted Trading Privileges (UTP) Operating Committee, comprised of all exchange participants and FINRA, has announced its approval of the **Fractional Share Trade Reporting Enhancements** for the UTP Trade data services. The objective of this project is to improve the transparency of off-exchange fractional share trading by enhancing the UTP SIP to support fractional share trade reporting. Fractional share trading is an activity in which a portion of a share of stock is exchanged between seller and buyer.

With this enhancement the UTP Processor has introduced **new Inbound Trade Messages** in section **2.4.2** to be used by those participants that require reporting in fractional share trade volumes.

1.1   Introduction

SIP Inbound protocol is composed of logical messages passed between the SIP host and the Participant's client application. Each message type with exception of *General Admin Message* has a fixed message length.

All messages sent from the SIP host to the client are sequenced, and their delivery is guaranteed by the lower level [SoupBinTCP 4.0](#) protocol. Rejects caused from Inquiry messages will be returned using the Unsequenced Soup Packets supported by the SoupBinTCP 4.0 protocol. All other Rejects will be returned as Sequenced Packets.

http://www.nasdaqtrader.com/content/technicalsupport/specifications/tradingproducts/soupbintcp4_0.pdf

All inbound messages require a sequence number that consists of a consecutive sequence of positive integers starting at 1. This allows for benign retransmission of messages on connection and application failures. SIP silently discards messages with a sequence number that is below the expected value.

1.2   Data Types

1.2.1   Table of Types

Type	Description
Byte	Single digit Alpha Field
short	Big-Endian Unsigned 16-Bit Integer
Int	Big-Endian Unsigned 32-Bit Integer
Long	Big-Endian Unsigned 64-Bit Integer
byte[]	Fixed Width Alpha Field
varbyte[]	Variable Width Alpha Field – Length contained in the prior field within the same message

1.2.2 Numeric Types
- Unsigned big-endian (network byte order) binary values
- Numeric types include *short*, *int*, *long*
- Prices represented by *long* fields have implied 6 decimal places.
- Prices represented by *short* fields have implied 2 decimal places.
- Volumes represented by **long fields** (all Fractional Share Trade Report messages) have implied 6 decimal places (e.g. 1 share = 1000000, 10.25 shares = 10250000)
- Volumes represented by **int fields** (all Whole Share Trade Report messages) have no implied decimal places (e.g. 1 share = 1)
- Timestamps are *long* and represent nanoseconds since Epoch.

1.2.3 Alpha Types
- ASCII encoded
- Only **Printable** ASCII characters are allowed. ([see section 5](#))
- Left justified and padded on the right with spaces
- Alpha (alphanumeric) fields include *byte*, *byte[],* and *varbyte[]*
- Security Identifiers are 1 to 11 characters long.

1.3 Strict Error Handling
When the SIP Participant line receives a **syntactically invalid** message an **unsequenced** reject message (aR) will be returned with an error code matching the first syntax error encountered and is immediately disconnected. Syntactical rejects will be returned using the **Unsequenced Soup Packets** supported by the SoupBinTCP 4.0 protocol. Syntax errors include:
- Unrecognized version / message category / message type
- Invalid length for the category / type specified
- Invalid or Unacceptable Originator
- Syntactically invalid byte, e.g. non-printable ASCII character in Symbol field
- Inbound Sequence number larger than expected

For syntactically invalid messages, the inbound message sequence number will not be accounted for, as there is no guarantee that any part of the message is valid. Any messages sent after the message in error, will need to be resent, once the corrected message is sent, with the original sequence number.

Rejects caused by **Inquiry** messages will be returned using the **Unsequenced Soup Packets** supported by the SoupBinTCP 4.0 protocol as well. The inbound message sequence number is not applicable to Inquiry messages.

Other errors due to system or security **state** will return as a **sequenced** reject messages (aR), but no disconnect will occur. The inbound message sequence will be accepted, and the **expected sequence number will be incremented**.

All **sequenced** reject messages will be returned on a rewind of the SoupTCPBin4.0 port.

1.4 Validation Table
Each message description contains a validation table that describes all the validations performed by the SIP on that message in the Validation Description column. It also contains the behavior of the SIP when the validation fails with the Reject Action, Reject Code, and Note columns.

The description of each Rejection Action is described in the following table.

Reject Action	Description
Disconnect	Unsequenced Reject Message with an appropriate Reject Code is returned, followed by a port level Disconnect. The inbound Message Sequence Number is **not** consumed. All messages after will be dropped, until the corrected inbound message with the same inbound Message Sequence Number is processed.
Reject	Sequenced Reject Message with an appropriate Reject Code is returned. The inbound Message Sequence Number is consumed. No port level Disconnect is performed.
Unseq Reject	Unsequenced Reject Message with an appropriate Reject Code is returned. Inbound Message Sequence Number is not applicable. **No Port level Disconnect is performed**. **(Used for Inquiry Message Rejects only)**
Drop Msg	Message is silently dropped. No Reject Message is returned. No port level Disconnect is performed. **(Duplicate message detected)**
None	No Reject Message is returned. No port level Disconnect is performed. **(Action performed across multiple items, but certain items in the group are not in the correct state to perform that action)**

1.5   Redundant Configuration

Each inbound connection to the SIP is mirrored by at least one hot standby host. Inbound connection handlers running on standby hosts maintain state identical to the primary.

- Primary and mirrored connections have the same port number but different IP addresses
- Participants can send inbound messages to SIP using any one of the mirrored hosts
- Participants are permitted to maintain active connections to the mirrored input handlers. Participants will observe identical live SIP outbound messages (SOD, EOD, non-syntax Rejects) on the actively used as well as mirrored connections.
- While it is possible for SIP to process inbound traffic received concurrently on multiple mirrored connections, such a use pattern of SIP resources is considered illegal. When concurrent arrival of Participant messages is detected on multiple mirrored connections, the SIP will alert system support personnel, who will contact the participant and consider termination of one of the connections.
- It is the responsibility of the Participant to detect failures of the primary connection and start sending messages to a standby.

1.6 Message Table

Category	Type	Allowed Participant	Quote Port	Trade Port	Message Description
INBOUND Quote Messages					
Q	Q	All	Y	N	Exchange Quote Short-form
Q	L	All	Y	N	Exchange Quote Long-form
Q	G	FINRA	Y	N	FINRA Quote with BBO Info
Q	F	FINRA	Y	N	FINRA Quote without BBO Info
INBOUND Whole Share Trade Messages					
T	E	All	N	Y	Regular Trade Report
T	I	All	N	Y	Trade Cancel/Error
T	J	All	N	Y	Trade Correction
T	H	All	N	Y	As/Of Trade Report
INBOUND Fractional Share Trade Messages					
T	K	All	N	Y	Fractional Regular Trade Report
T	O	All	N	Y	Fractional Trade Cancel/Error
T	P	All	N	Y	Fractional Trade Correction
T	Q	All	N	Y	Fractional As/Of Trade Report
Administrative Messages					
A	A	All	Y	Y	General Administrative
A	E	Nasdaq	Y	Y	Auction Collar
A	O	Nasdaq	Y	Y	Trading Action
A	J	All	Y	N	Market Center Trading Action
A	U	All	Y	N	Market Center Mass Trading Action
A	V	Nasdaq	Y	Y	Reg SHO Short Sale Restrict Indicator
A	M	Nasdaq	N	Y	Opening Reference Midpoint Price
A	N	Nasdaq	N	Y	T1 Adjusted Closing Price
A	X	All	Y	Y	Market Open
A	Y	All	Y	Y	Market Closed
Control Messages					
C	C	All	Y	Y	Sequence Inquiry
C	S	All	Y	Y	Symbol State Inquiry
C	G	All	Y	Y	End Of Participant Reporting
RETURN Administrative Messages					
a	A	All	Y	Y	General Administrative
a	J	All	Y	Y	Market Center Trading Action
a	X	All	Y	Y	Market Open
a	Y	All	Y	Y	Market Closed
a	R	All	Y	Y	Reject
a	K	All	Y	Y	Sequence Acknowledgement
RETURN Control Messages					
c	E	SIP	Y	Y	Start of Day
c	F	SIP	Y	Y	End of Day
c	C	All	Y	Y	Sequence Inquiry Response
c	S	All	Y	Y	Symbol State Inquiry Response

2 Inbound Messages (Sent from Participant to the SIP)

2.1 Inbound Message Header

All inbound messages must precede each message specific data section with the inbound message header.

Name	Offset	Length	Type	Notes
Version	0	1	byte	Protocol Version
msgCategory	1	1	byte	Message Category
msgType	2	1	byte	Message Type
Orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Participant's Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token

The inbound message header contains a one-byte alpha *version* field to allow for each message format to be updated, while still supporting previous versions of a message during transition.

The *orig* field (Originating Participant) represents the Market (or Processor) responsible for generating the message on the Participant Line. **Refer to Section** **4.1**

The *feedSequence* is a sequence number that consists of a consecutive sequence of positive integers starting at 1. This allows for benign retransmission of messages on connection and application failures. SIP silently discards messages with a sequence number that is below the expected value. Sending a *feedSequence* larger than what is expected is a protocol error, and the client will be disconnected.

The field *timestamp1* is a participant-provided timestamp representing the number of nanoseconds since Epoch. The value is a long numeric. The precision of the field supports nanoseconds, but the present requirement is for the participant to supply microsecond precision. The Participant need only convert microseconds to nanoseconds from Epoch before sending the value to the SIP. The SIP will simply pass through the value provided by the participant where applicable. Unless otherwise stated in the message definition, timestamp1 will be validated to be +/- 24hrs of the Start of Day event.

> • **If from an Exchange:** denotes the Exchange Matching Engine Publication timestamp for a transaction. Exchanges use a clock sync methodology ensuring that timestamps are accurate within tolerances of 100 microseconds or less.

> • **If from the FINRA Alternative Display Facility (ADF) and/or a FINRA Trade Reporting Facility (TRF):** denotes the time of execution that a FINRA member reports to the FINRA ADF or a FINRA TRF. FINRA shall convert times that its members report to it in seconds or milliseconds to nanoseconds and shall provide such times to the SIP in nanoseconds since Epoch.

The Participant Token (*partToken*) is a long numeric participant generated value that will be passed through and published on the outbound vendor data feeds as appropriate. If a participant chooses not to use this value, they should set it to 0.

Inbound Message Header Validation

Validation Description	Reject Action	Reject Code	Note
Version is a supported version number	Disconnect	83	Unsupported Message Version
Version/MsgCat/MsgType triplet is supported	Disconnect	1	Invalid Message Type
MsgCat/MsgType pair are allowed on the specific port type	Disconnect	1	Invalid Message Type
Message Length is equal to the length of the specified fixed length message.	Disconnect	37	Invalid Message Format
Message Length is greater than or equal to the fixed length portion of the variable length message.	Disconnect	37	Invalid Message Format
Originator is a valid Originator Value	Disconnect	2	Invalid Originating Participant
Originator matches acceptable Originator for this Port	Disconnect	84	Originating Participant Not Allowed
feedSequence number equals what is expected (validation failure = greater than what is expected)	Disconnect	7	Missing Message (Gap Detected)
feedSequence number equals what is expected (validation failure = less than what is expected)	Drop Msg	None	Message is considered a duplicate and dropped.
Timestamp1 is within an appropriate range	Disconnect	60	Invalid Date and Time
partToken is valid			partToken is a pass-through, all values are valid.

2.2 Exchange Quote Messages

Exchange Quote Messages have message category Q. Quote messages are only allowed on Participant Quote Input lines. Arrival of a Q message on a Trade Input Line will result in immediate disconnect.

Exchange Quote messages are used to transmit Bid and Ask price and size information messages from the Exchanges to the SIP. The inbound message will contain an Originating Participant value for the Participant submitting the quote.

Each Participant is required to enter fresh quote data for all NASDAQ issues at the beginning of each day. The SIP will not carry-over Participant Quote data from day-to-day.

The Retail Interest Indicator (*rii*) is intended for participants planning on using the Retail Liquidity Program, as a means for inputting the Retail Interest Indicator within their BBO quote.

2.2.1 Exchange Quote Message Short-form (QQ)

Name	Offset	Length	Type	Notes
Version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	Q – Inbound Quote Messages (Quote Line Only)
msgType	2	1	byte	Q – Short-format Exchange Quotation Message
Orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
Symbol	29	5	byte[]	Security Identifier
Bid	34	2	short	Bid Price
bidSize	36	2	short	Bid Size
Ask	38	2	short	Ask Price
askSize	40	2	short	Ask Size
Cond	42	1	byte	Quote Condition
Rii	43	1	byte	Retail Interest Indicator

The SIP participants should use the short form quote message format if the quote details meet the following criteria:
- The Issue Symbol is *5* characters or less
- Both Bid and Ask Prices have a maximum price of $*655.35*
- Both Bid and Ask Prices only use 2 decimal precision
- Both Bid and Ask Sizes have a maximum size of 65535

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Reject	26	Unknown Security Id
Quote Condition is within the valid character set	Disconnect	31	Invalid Quote Condition
Quote Condition is an acceptable quote condition value	Reject	31	Invalid Quote Condition
Retail Interest Indicator is within the valid character set	Disconnect	80	Invalid Retail Interest Indicator
Retail Interest Indicator is a supported value	Reject	80	Invalid Retail Interest Indicator
Security not in Market Wide Halt	Reject	79	Market Wide Halt
Security not in Participant specific Halt	Reject	75	Participant Halted

System is Open	Reject	11	System Not Open
			  a. Quote sent before SOD disseminated
			  b. Quote sent after Participant EOPR
			  c. Quote sent after EOD

2.2.2 Exchange Quote Message Long-form (QL)

Name	Offset	Length	Type	Notes
Version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	Q – Inbound Quote Messages (Quote Line Only)
msgType	2	1	byte	L – Long-format Exchange Quotation Message
Orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
Symbol	29	11	byte[]	Security Identifier
bid	40	8	long	Bid Price
bidSize	48	4	int	Bid Size
ask	52	8	long	Ask Price
askSize	60	4	int	Ask Size
cond	64	1	byte	Quote Condition
rii	65	1	byte	Retail Interest Indicator

The long form quote message has the following range restrictions on the specified fields:
- The Issue Symbol is *11* characters or less
- Both Bid and Ask Prices have a maximum allowable price of $9,223,372,036,854.775807
- Both Bid and Ask Prices have 6 decimal implied precision
- Both Bid and Ask Sizes have a maximum allowable size of 2,147,483,647

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Reject	26	Unknown Security Id
Bid Price is in range	Reject	28	Invalid Price – Price is greater than $9,223,372,036,854.775807
Bid Size is in range	Reject	48	Invalid Size – Size is greater than 2,147,483,647
Ask Price is in range	Reject	28	Invalid Price – Price is greater than $9,223,372,036,854.775807
Ask Size is in range	Reject	48	Invalid Size – Size is greater than 2,147,483,647
Quote Condition is within the valid character set	Disconnect	31	Invalid Quote Condition

Quote Condition is an acceptable quote condition value	Reject	31	Invalid Quote Condition
Retail Interest Indicator is within the valid character set	Disconnect	80	Invalid Retail Interest Indicator
Retail Interest Indicator is an acceptable value	Reject	80	Invalid Retail Interest Indicator
Security not in Market Wide Halt	Reject	79	Market Wide Halt
Security not in Participant specific Halt	Reject	75	Participant Halted
System is Open	Reject	11	System Not Open a. Quote sent before SOD disseminated b. Quote sent after Participant EOPR c. Quote sent after EOD

2.3 FINRA Quote Messages

FINRA Quote Messages have message category Q. Quote messages are only allowed on Participant Quote Input lines. Arrival of a Q message on a Trade Input Line will result in immediate disconnect.

The FINRA Market Participant Quotation Message is a fixed field message. It is used to transmit Bid and Ask price and size information messages, and associated BBO from the FINRA ADF. The inbound message will contain an Originator Id of "ND" for the FINRA ADF.

Each ADF Participant is required to enter fresh quote data for all NASDAQ issues at the beginning of each day. The SIP will not carry-over individual MPID Participant Quote data from day-to-day.

FINRA must state the best bid and offer MPID for their marketplace in the message.

Timestamp2 will be used by the FINRA ADF and/or a FINRA TRF to a provide timestamp representing the number of nanoseconds since Epoch.

• **If from an Exchange:** *timestamp2* should be set to 0

• **If from the FINRA Alternative Display Facility (ADF) or a FINRA Trade Reporting Facility (TRF):**

    If the FINRA ADF or a FINRA TRF provides a proprietary feed of trades reported by the facility, then the FINRA facility will publish the time of the transmission as also published on the facility's proprietary trade feed. The TRF or ADF shall convert times that it reports trades on its proprietary trade feed in seconds or milliseconds to nanoseconds and shall provide such times to the Processor in nanoseconds since Epoch.

    If the FINRA ADF or the FINRA TRF facility does not have a proprietary trade feed, *timestamp2* should be set to 0.

The FINRA quote messages have the following range restrictions on the specified fields:
- The Issue Symbol is *11* characters or less
- Both Bid and Ask Prices have a maximum allowable price of $9,223,372,036,854.775807
- All Bid and Ask Prices have 6 decimal implied precision
- All Bid and Ask Sizes have a maximum allowable size of 2,147,483,647

2.3.1 FINRA Quote Message with BBO Info (QG)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	Q – Inbound Quote Messages (Quote Line Only)
msgType	2	1	byte	G – FINRA BBO Quote Message w BBO Info
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
timestamp2	29	8	long	Timestamp
symbol	37	11	byte[]	Security Identifier
bid	48	8	long	Bid Price
bidSize	56	4	int	Bid Size
ask	60	8	long	Ask Price
askSize	68	4	int	Ask Size
cond	72	1	byte	Quote Condition
mpid	73	4	byte[]	Finra Mkt Participant
bboBid	77	8	long	Best Bid Price
bboBidSize	85	4	int	Best Bid Size
bboBidMpid	89	4	byte[]	Best Bid Market Participant
bboAsk	93	8	long	Best Ask Price
bboAskSize	101	4	int	Best Ask Size
bboAskMpid	105	4	byte[]	Best Ask Mkt Participant
bboCond	109	1	byte	BBO Quote Condition

The FINRA Quote Message with BBO Info (QG) is used when there is a change to the FINRA ADF BBO. If the FINRA ADF BBO becomes ineligible or is closed a QG message is sent with bboBid = 0. bboBidSize = 0, bboAsk = 0, and bboAskSize = 0.

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Reject	26	Unknown Security Id
Bid Price is in range	Reject	28	Invalid Price – Price is greater than $9,223,372,036,854.775807
Bid Size is in range	Reject	48	Invalid Size – Size is greater than 2,147,483,647
Ask Price is in range	Reject	28	Invalid Price – Price is greater than $9,223,372,036,854.775807
Ask Size is in range	Reject	48	Invalid Size – Size is greater than 2,147,483,647

Quote Condition is within the valid character set	Disconnect	31	Invalid Quote Condition
Quote Condition is an acceptable quote condition value	Reject	31	Invalid Quote Condition
MPID is within the valid character set	Disconnect	66	Invalid MPID
BBO Bid MPID is within the valid character set	Disconnect	68	Invalid FINRA BBO MPID
BBO Ask MPID is within the valid character set	Disconnect	68	Invalid FINRA BBO MPID
BBO Bid Price is in range	Reject	69	Invalid FINRA BBO Price – Price is greater than $9,223,372,036,854.775807
BBO Bid Size is in range	Reject	70	Invalid FINRA BBO Size – Size is greater than 2,147,483,647
BBO Ask Price is in range	Reject	69	Invalid FINRA BBO Price – Price is greater than $9,223,372,036,854.775807
BBO Ask Size is in range	Reject	70	Invalid FINRA BBO Size – Size is greater than 2,147,483,647
BBO Quote Condition is within the valid character set	Disconnect	71	Invalid FINRA BBO Cond
BBO Quote Condition is an acceptable quote condition value	Reject	71	Invalid FINRA BBO Cond
Security not in Market Wide Halt	Reject	79	Market Wide Halt
Security not in Participant specific Halt	Reject	75	Participant Halted
System is Open	Reject	11	System Not Open a. Trade sent before SOD disseminated b. Trade sent after Participant EOPR c. Trade sent after EOD

2.3.2 FINRA Quote Message without BBO Info (QF)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	Q – Inbound Quote Messages (Quote Line Only)
msgType	2	1	byte	F – FINRA BBO Quote Message without BBO Info
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
timestamp2	29	8	long	Timestamp
symbol	37	11	byte[]	Security Identifier
bid	48	8	long	Bid Price
bidSize	56	4	int	Bid Size
ask	60	8	long	Ask Price
askSize	68	4	int	Ask Size
cond	72	1	byte	Quote Condition
mpid	73	4	byte[]	Finra Mkt Participant
bboIndicator	77	1	byte	FINRA BBO Indicator

The FINRA Quote Message without BBO Info (QF) is used when either No BBO exists (bboIndicator=B) or the BBO hasn't changed (bboIndicator=A). If the FINRA ADF BBO becomes ineligible or is closed a QG message shall be sent (not QF) with bboBid = 0. bboBidSize = 0, bboAsk = 0, and bboAskSize = 0.

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Reject	26	Unknown Security Id
Bid Price is in range	Reject	28	Invalid Price – Price is greater than $9,223,372,036,854.775807
Bid Size is in range	Reject	48	Invalid Size – Size is greater than 2,147,483,647
Ask Price is in range	Reject	28	Invalid Price – Price is greater than $9,223,372,036,854.775807
Ask Size is in range	Reject	48	Invalid Size – Size is greater than 2,147,483,647
Quote Condition is within the valid character set	Disconnect	31	Invalid Quote Condition
Quote Condition is an acceptable quote condition value	Reject	31	Invalid Quote Condition

MPID is within the valid character set	Disconnect	66	Invalid MPID
BBO Indicator is within the valid character set	Disconnect	86	Invalid BBO Indicator
BBO Indicator is an acceptable indicator value	Reject	86	Invalid BBO Indicator
Security not in Market Wide Halt	Reject	79	Market Wide Halt
Security not in Participant specific Halt	Reject	75	Participant Halted
System is Open	Reject	11	System Not Open a. Quote sent before SOD disseminated b. Quote sent after Participant EOPR c. Quote sent after EOD

2.4   Trade Messages

Trade Messages have message category T. Trade messages are only allowed on Participant Trade Input lines. Arrival of a T message on a Quote Input Line will result in immediate disconnect.

All *volume* fields within **Whole Share** trade messages have an allowable maximum value of 2,147,483,647. Any larger value will be rejected with a range error.

All *volume* fields within **Fractional Share** trade messages have an allowable maximum value of 9,223,372,036,854.775807. Any larger value will be rejected with a range error.

For all Trade reporting messages, the following notes apply:

Note 1: The Form T (T) Sale Condition should be applied for the following:
- Trades executed on trade day between 12:00 a.m. and 9:30 a.m.
- Trades executed on trade day between 4:00:01 p.m. and 8:00 p.m.

Note 2: The U Extended Hours (Sold out of sequence) Sale Condition should be applied when transactions executed during the following time periods are reported more than 10 seconds after execution.
- Trades executed on trade day between 12:00 a.m. and 9:30 a.m.
- Trades executed on trade day between 4:00:01 p.m. and 8:00 p.m.

Note 3: The Sale Condition "M", Market Center Close Price, is used to indicate the "official" closing value as determined by a market center. A message generated with this condition will contain the market center generated closing price. The "M" sale condition modifier shall only affect the market center closing/last sale value and will not affect the consolidated market value.

Note 4: The Sale Condition "Q", Market Center Open Price, is used to indicate the "official" open value as determined by a Market Center. A message generated with this condition will contain the Market Center generated open price. The "Q" sale condition shall only affect the Market Center open high/low values and will not affect any of the consolidated market values.

Note 5: Certain Participants utilize the .W sale condition (average price trades) to report stopped stock transactions. Because .W sale condition trades reflect other transaction prices, the trades with this sale condition will not affect the consolidated or market center high, low, or last sale prices. Volume statistics, however, will be impacted.

Note 6: Odd lot transactions will be rejected back to the participant via Error Code 29 – "Invalid Volume", for the following reasons:

Description	Code

Invalid Volume
    a. Report Volume is zero and sale condition does not equal **"9"**, "M" or "Q"
    b. Report Volume contains volume less than a round lot and **sale condition does not equal "I"**
	29

Note 7: The Sale Condition "Y", Yellow Flag, is used to convey periods of time when a Market Center may be experiencing technical difficulties. This sale condition will affect the Market Center and Consolidated last sale, high, low and volume values.

Note 8: The Sale condition "9", Corrected Consolidated Close (per listing market), will be allowed to be used only by the Listing Market and may be used to adjust the consolidated last sale price. The Corrected Consolidated Close will be eligible to set the High, Low and Last for the consolidated statistics and will not update the participant records. Volume will always be reported as zero and will appear in Level 2 of the extended sale condition modifier field on the UTDF and CTS data feeds. Corrected Consolidated Close transactions will be rejected back to participants for the following reasons:

Sale Condition "9" Processing Scenario	Validation Processing	Reject Reason
Sale Condition "9" Trades received before allowable reporting time of 30 seconds after market close	Invalid Reporting Time	82
Sale Condition "9" Trades received from non-listing market	Invalid Originating Participant	2
Sale Condition "9" Trades received from Listing Market with Volume Other than Zero (0)	Invalid Volume	29

timestamp2 will be used by the FINRA ADF and/or a FINRA TRF to provided timestamp representing the number of nanoseconds since Epoch.

• If from an Exchange: *timestamp2* should be set to 0
• If from the FINRA Alternative Display Facility (ADF) or a FINRA Trade Reporting Facility (TRF):

If the FINRA ADF or a FINRA TRF provides a proprietary feed of trades reported by the facility, then the FINRA facility will publish the time of the transmission as also published on the facility's proprietary trade feed. The TRF or ADF shall convert times that it reports trades on its proprietary trade feed in seconds or milliseconds to nanoseconds and shall provide such times to the Processor in nanoseconds since Epoch.

If the FINRA ADF or the FINRA TRF facility does not have a proprietary trade feed, *timestamp2* should be set to 0.

2.4.1 Whole Share trade Reporting

Trade reporting messages defined in this section may be used for reporting of current or prior day trades, trade cancels and trade corrections that **do not** have a fractional trade volume.

2.4.1.1 Regular Trade Report Message (TE)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	T – Inbound Trade Messages (Trade Line Only)
msgType	2	1	byte	E – Regular Trade Report Message
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Participant's Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
timestamp2	29	8	long	Timestamp
symbol	37	11	byte[]	Security Identifier
tradeId	48	4	int	Trade Identifier
ttExempt	52	1	byte	Trade Through Exempt
trcond	53	4	byte[]	Sale Condition
ssday	57	2	short	Seller Sales Day
side	59	1	byte	Side of execution
price	60	8	long	Trade Price
volume	68	4	int	Trade Volume

Each Exchange Participant is required to forward Last Sale reports, where applicable, to the SIP. The inbound message will contain an Originator Id of one of the Participants.

The *tradeId* is a sequence number that consists of a consecutive sequence of positive integers starting at 1. This sequence is on a per symbol basis. This sequence is used to allow trades to be canceled/corrected by tradeId. If the *tradeId* is less than the expected sequence number it will be ignored as a duplicate.

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Reject	26	Unknown Security Id
Trading Identifier matches expected (validation failure = greater than what is expected)	Reject	92	Unexpected Trade Id. Trade id will not be consumed.

Trading Identifier matches expected (verification failure = less than what is expected)	Reject	92	Unexpected Trade Id. Trade id is not consumed.
Trade Through Exempt Flag is within the valid character set	Disconnect	87	Invalid Trade Through Exempt Flag
Trade Through Exempt Flag is an acceptable exempt flag value	Reject	87	Invalid Trade Through Exempt Flag
Sale Condition is within the valid character set	Disconnect	31	Invalid Condition
Sale Condition contains acceptable sale condition values	Reject	31	Invalid Condition
Sale Condition values are in proper buckets	Reject	31	Invalid Condition
Sale Condition and Trade Through Exempt Flag combination is invalid	Reject	31	Invalid Condition
Seller Sales Day is a valid value	Reject	32	Invalid Number of Days field a. The condition field is R and the Seller days is 2-60. All other conditions it should be 0.
Side of Execution is within the valid character set	Disconnect	33	Invalid Execution Side
Side of Execution contains acceptable side of execution value	Reject	33	Invalid Execution Side
Volume is valid	Reject	29	Invalid Volume a. Report Volume is zero and sale condition does not equal "M" or "Q" b. Report contains volume of less than a round lot and sale condition does not equal "I" c. Sale Condition "9" received from Listing Market with Volume Other than Zero (0) d. Volume is not larger than 2,147,483,647
Validate time for submitting Trade Report	Reject	82	Invalid Reporting Time a. Trade Report with sale condition "9" received prior to allowable reporting time.

System is Open	Reject	11	System Not Open a. Trade Report sent before SOD disseminated b. Trade Report sent after Participant EOPR c. Trade Report sent after EOD

2.4.1.2 Trade Cancel/Error Message (TI)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	T – Inbound Trade Messages (Trade Line Only)
msgType	2	1	byte	I – Trade Cancel Message
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
timestamp2	29	8	long	Timestamp
symbol	37	11	byte[]	Security Identifier
cancelType	48	1	byte	Trade Cancellation Type
origTradeId	49	4	int	Original Trade Id of trade being acted on.
origTtExempt	53	1	byte	Original Trade Through Exempt Flag
origTrcond	54	4	byte[]	Original Sale Condition
origSsday	58	2	short	Original Seller Sales Day
origSide	60	1	byte	Original Side of execution
origPrice	61	8	long	Original Trade Price
origVolume	69	4	int	Original Trade Volume

Each Exchange Participant is required to forward Cancel/Error Reports to the SIP when a trade report that has originally been delivered needs to be cancelled from the system. The inbound message will contain an Originator Id of one of the Participants.

The original trade targeted for cancellation must be identified by *origTradeId*.

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Reject	26	Unknown Security Id
Trade Cancellation Type is within the valid character set	Disconnect	27	Invalid Trade Cancellation Type
Trade Cancellation Type contains acceptable trade cancellation values	Reject	27	Invalid Trade Cancellation Type
Original Trade Id matches a trade record	Reject	73	Trade Doesn't Match
Original Trade Through Exempt Flag is within the valid character set	Disconnect	87	Invalid Trade Through Exempt Flag
Original Trade Through Exempt Flag matches original trade record.	Reject	73	Trade Doesn't Match
Original Sale Condition is within the valid character set	Disconnect	31	Invalid Condition
Original Sale Condition matches original trade record.	Reject	73	Trade Doesn't Match
Original Seller Sales Day matches original trade record.	Reject	73	Trade Doesn't Match
Original Side of Execution is within the valid character set	Disconnect	33	Invalid Execution Side
~~Original Side of Execution matches original trade record.~~	~~Reject~~	~~73~~	~~Trade Doesn't Match~~
Original Trade Price matches original trade record.	Reject	73	Trade Doesn't Match
Original Trade Volume matches original trade record.	Reject	73	Trade Doesn't Match
System is Open	Reject	11	System Not Open a. Trade Report sent before SOD disseminated b. Trade Report sent after Participant EOPR c. Trade Report sent after EOD

2.4.1.3   Trade Correction Message (TJ)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	T – Inbound Trade Messages (Trade Line Only)
msgType	2	1	byte	J – Trade Correction Message
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
timestamp2	29	8	long	Timestamp
symbol	37	11	byte[]	Security Identifier
tradeId	48	4	int	Trade Id for the corrected trade
origTradeId	52	4	int	Original Trade Id of trade being acted on.
origTtExempt	56	1	byte	Original Trade Through Exempt Flag
origTrcond	57	4	byte[]	Original Sale Condition
origSsday	61	2	short	Original Seller Sales Day
side	63	1	byte	Side of execution
origPrice	64	8	long	Original Trade Price
origVolume	72	4	int	Original Trade volume
newTtExempt	76	1	byte	Trade Through Exempt Flag
newTrcond	77	4	byte[]	Sale Condition
newSsday	81	2	short	Seller Sales Day
newPrice	83	8	long	Trade Price
newVolume	91	4	int	Trade volume

Each Exchange Participant is required to forward Correction Trade Reports, where applicable, to the SIP in order to maintain correct consolidated Last Sale data. The inbound message will contain an Originator Id of one of the Participants.

The original trade targeted for correction must be identified by *origTradeId*.

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Reject	26	Unknown Security Id
Trading Identifier matches expected (validation failure = greater than what is expected)	Reject	92	Unexpected Trade Id. Trade id will not be consumed.
Trading Identifier matches expected (verification failure = less than what is expected)	Reject	92	Unexpected Trade Id. Trade id will not be consumed.
Original Trade Id matches a trade record	Reject	73	Trade Doesn't Match

Original Trade Through Exempt Flag is within the valid character set	Disconnect	87	Invalid Trade Through Exempt Flag
Original Trade Through Exempt Flag matches original trade record.	Reject	73	Trade Doesn't Match
Original Sale Condition is within the valid character set	Disconnect	31	Invalid Condition
Original Sale Condition matches original trade record.	Reject	73	Trade Doesn't Match
Original Seller Sales Day matches original trade record.	Reject	73	Trade Doesn't Match
Side of Execution is within the valid character set	Disconnect	33	Invalid Execution Side
~~Side of Execution matches original trade record.~~	~~Reject~~	~~73~~	~~Trade Doesn't Match~~
Original Trade Price matches original trade record.	Reject	73	Trade Doesn't Match
Original Trade Volume matches original trade record.	Reject	73	Trade Doesn't Match
New Trade Through Exempt Flag is within the valid character set	Disconnect	87	Invalid Trade Through Exempt Flag
New Trade Through Exempt Flag is an acceptable exempt flag value	Reject	87	Invalid Trade Through Exempt Flag
New Sale Condition is within the valid character set	Disconnect	31	Invalid Condition
New Sale Condition contains acceptable sale condition values	Reject	31	Invalid Condition
New Sale Condition values are in proper buckets	Reject	31	Invalid Condition
New Sale Condition and Trade Through Exempt Flag combination is invalid	Reject	31	Invalid Condition
New Seller Sales Day is a valid value	Reject	32	Invalid Number of Days field a. The condition field is R and the Seller days is 2-60. All other conditions it should be 0.
New Trade Price is in range	Reject	28	Invalid Price

New Volume is valid	Reject	29	Invalid Volume
			   a. Report Volume is zero and sale condition does not equal "M" or "Q"
			   b. Report contains volume of less than a round lot and

			sale condition does not equal "I" c. Sale Condition "9" received from Listing Market with Volume Other than Zero (0) d. Volume is not larger than 2,147,483,647
Validate time for submitting Trade Report	Reject	82	Invalid Reporting Time a. Trade Report with sale condition "9" received prior to allowable reporting time.
System is Open	Reject	11	System Not Open a. Trade Report sent before SOD disseminated b. Trade Report sent after Participant EOPR c. Trade Report sent after EOD

2.4.1.4   As/Of Trade Report Message (TH)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	T – Inbound Trade Messages (Trade Line Only)
msgType	2	1	byte	H – As/Of Trade Report Message
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
symbol	29	11	byte[]	Security Identifier
tradeId	40	4	int	Trade Id of As/Of Trade
ttExempt	44	1	byte	Trade Through Exempt Flag
trcond	45	4	byte[]	Sale Condition
ssday	49	2	short	Seller Sales Day
side	51	1	byte	Side of execution
price	52	8	long	Trade Price
volume	60	4	int	Trade volume
tradeTime	64	8	long	Time of trade (may be prior day, format is nanoseconds since Epoch)
reversal	72	1	byte	Reversal Indicator

Participants may submit As/Of type transactions to the SIP. The inbound message will contain an Originator Id of one of the Participants.

Timestamp1 will not be validated for As/Of trades and will be passed through directly to the outbound vendor data feeds.

Participants should not increment current day *tradeId* sequence when sending an As/Of Trade. There is no verification of the *tradeId* it will be passed through and published directly to the outbound vendor data feeds.

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
~~Security Identifier is not available in SIP~~	~~Reject~~	~~26~~	~~Unknown Security Id~~
Trade Through Exempt Flag is within the valid character set	Disconnect	87	Invalid Trade Through Exempt Flag
Trade Through Exempt Flag is an acceptable exempt flag value	Reject	87	Invalid Trade Through Exempt Flag
Sale Condition is within the valid character set	Disconnect	31	Invalid Condition
Sale Condition contains acceptable sale condition values	Reject	31	Invalid Condition
Sale Condition values are in proper buckets	Reject	31	Invalid Condition

Sale Condition and Trade Through Exempt Flag combination is invalid	Reject	31	Invalid Condition
Seller Sales Day is a valid value	Reject	32	Invalid Number of Days field a. The condition field is R and the Seller days is 2-60. All other conditions it should be 0.
Side of Execution is within the valid character set	Disconnect	33	Invalid Execution Side
Side of Execution contains acceptable side of execution value	Reject	33	Invalid Execution Side
Trade Price is in range	Reject	28	Invalid Price
Volume is valid	Reject	29	Invalid Volume a. Report Volume is zero and sale condition does not equal "M" or "Q" b. Report contains volume of less than a round lot and sale condition does not equal "I" c. Sale Condition "9" received from Listing Market with Volume Other than Zero (0)
tradeTime is prior to the present session date	Reject	60	Invalid Date and Time
Reversal indicator is within the valid character set	Disconnect	76	Invalid Reversal Indicator
Reversal indicator contains acceptable reversal indicator values	Reject	76	Invalid Reversal Indicator
Validate time for submitting Trade Report	Reject	82	Invalid Reporting Time a. Trade Report with sale condition "9" received prior to allowable reporting time.
System is Open	Reject	11	System Not Open a. Trade Report sent before SOD disseminated b. Trade Report sent after Participant EOPR c. Trade Report sent after EOD

2.4.2 Fractional Share Trade Report Messages (implied 6 decimals)

Effective with the approval of the Fractional Share Change Request, the UTP SIP will introduce new inbound fractional trade messages for use by those participants that require their members to report trades in fractional share quantities, tentatively scheduled for Q1 2025.

Prior to production implementation of this release, any of the four fractional share trade report message types received will be treated as *unknown message types*, with the transaction rejected and the originating **input line disconnected**.

The following fractional message formats are used to disseminate Trade Reports, Trade Corrections, As/Of Trades and Trade Cancellations/Errors for NASDAQ listed securities with implied 6 decimals.

2.4.2.1 *Fractional Regular Trade Report Message (TK)*

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	T – Inbound Trade Messages (Trade Line Only)
msgType	2	1	byte	K – New Fractional Trade Report Message
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Participant's Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
timestamp2	29	8	long	Timestamp
symbol	37	11	byte[]	Security Identifier
tradeId	48	4	int	Trade Identifier
ttExempt	52	1	byte	Trade Through Exempt Flag
trcond	53	4	byte[]	Sale Condition
ssday	57	2	short	Seller Sales Day
side	59	1	byte	Side of execution
price	60	8	long	Trade Price
volume	68	8	long	Trade Volume (implied 6 decimals)
Total Length	**76**			

Each Exchange Participant is required to forward Last Sale reports, where applicable, to the SIP. The inbound message will contain an Originator Id of one of the Participants.

The *tradeId* is a sequence number that consists of a consecutive sequence of positive integers starting at 1. This sequence is on a per symbol basis. This sequence is used to allow trades to be canceled/corrected by tradeId. If the *tradeId* is less than the expected sequence number it will be ignored as a duplicate.

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Reject	26	Unknown Security Id
Trading Identifier matches expected (validation failure = greater than what is expected)	Reject	92	Unexpected Trade Id. Trade id will not be consumed.
Trading Identifier matches expected (verification failure = less than what is expected)	Reject	92	Unexpected Trade Id. Trade id is not consumed.
Trade Through Exempt Flag is within the valid character set	Disconnect	87	Invalid Trade Through Exempt Flag
Trade Through Exempt Flag is an acceptable exempt flag value	Reject	87	Invalid Trade Through Exempt Flag
Sale Condition is within the valid character set	Disconnect	31	Invalid Condition
Sale Condition contains acceptable sale condition values	Reject	31	Invalid Condition
Sale Condition values are in proper buckets	Reject	31	Invalid Condition
Sale Condition and Trade Through Exempt Flag combination is invalid	Reject	31	Invalid Condition
Seller Sales Day is a valid value	Reject	32	Invalid Number of Days field a. The condition field is R and the Seller days is 2-60. All other conditions it should be 0.
Side of Execution is within the valid character set	Disconnect	33	Invalid Execution Side
Side of Execution contains acceptable side of execution value	Reject	33	Invalid Execution Side
Volume is valid	Reject	29	Invalid Volume a. Report Volume is zero and sale condition does not equal "M" or "Q" b. Report contains volume of less than a round lot and sale condition does not equal "I" c. Sale Condition "9" received from Listing Market with Volume Other than Zero (0)
Validate time for submitting Trade Report	Reject	82	Invalid Reporting Time a. Trade Report with sale condition "9" received prior to allowable reporting time.
System is Open	Reject	11	System Not Open a. Trade Report sent before SOD disseminated b. Trade Report sent after Participant EOPR c. Trade Report sent after EOD

2.4.2.2 Fractional Trade Cancel/Error Message (TO)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	T – Inbound Trade Messages (Trade Line Only)
msgType	2	1	byte	O – New Fractional Trade Cancel Message
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
timestamp2	29	8	long	Timestamp
symbol	37	11	byte[]	Security Identifier
cancelType	48	1	byte	Trade Cancellation Type
origTradeId	49	4	int	Original Trade Id of trade being acted on.
origTtExempt	53	1	byte	Original Trade Through Exempt Flag
origTrcond	54	4	byte[]	Original Sale Condition
origSsday	58	2	short	Original Seller Sales Day
origSide	60	1	byte	Original Side of execution
origPrice	61	8	long	Original Trade Price
origVolume	69	8	long	Original Trade Volume (implied 6 decimals)
Total Length	**77**			

Each Exchange Participant is required to forward Cancel/Error Reports to the SIP when a trade report that has originally been delivered needs to be cancelled from the system. The inbound message will contain an Originator Id of one of the Participants.

The original trade targeted for cancellation must be identified by *origTradeId*.

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Reject	26	Unknown Security Id
Trade Cancellation Type is within the valid character set	Disconnect	27	Invalid Trade Cancellation Type
Trade Cancellation Type contains acceptable trade cancellation values	Reject	27	Invalid Trade Cancellation Type
Original Trade Id matches a trade record	Reject	73	Trade Doesn't Match
Original Trade Through Exempt Flag is within the valid character set	Disconnect	87	Invalid Trade Through Exempt Flag
Original Trade Through Exempt Flag matches original trade record.	Reject	73	Trade Doesn't Match
Original Sale Condition is within the valid character set	Disconnect	31	Invalid Condition
Original Sale Condition matches original trade record.	Reject	73	Trade Doesn't Match
Original Seller Sales Day matches original trade record.	Reject	73	Trade Doesn't Match
Original Side of Execution is within the valid character set	Disconnect	33	Invalid Execution Side
~~Original Side of Execution matches original trade record.~~	~~Reject~~	~~73~~	~~Trade Doesn't Match~~
Original Trade Price matches original trade record.	Reject	73	Trade Doesn't Match
Original Trade Volume matches original trade record.	Reject	73	Trade Doesn't Match
System is Open	Reject	11	System Not Open a. Trade Report sent before SOD disseminated b. Trade Report sent after Participant EOPR c. Trade Report sent after EOD

2.4.2.3 Fractional Trade Correction Message (TP)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	T – Inbound Trade Messages (Trade Line Only)
msgType	2	1	byte	P – New Fractional Trade Correction Message
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
timestamp2	29	8	long	Timestamp
symbol	37	11	byte[]	Security Identifier
tradeId	48	4	int	Trade Id for the corrected trade
origTradeId	52	4	int	Original Trade Id of trade being acted on
origTtExempt	56	1	byte	Original Trade Through Exempt Flag
origTrcond	57	4	byte[]	Original Sale Condition
origSsday	61	2	short	Original Seller Sales Day
side	63	1	byte	Side of execution
origPrice	64	8	long	Original Trade Price
origVolume	72	8	long	Original Trade volume (implied 6 decimals)
newTtExempt	80	1	byte	Trade Through Exempt Flag
newTrcond	81	4	byte[]	Sale Condition
newSsday	85	2	short	Seller Sales Day
newPrice	87	8	long	Trade Price
newVolume	95	8	long	Corrected Trade volume (implied 6 decimals)
Total Length	**103**			

Each Exchange Participant is required to forward Correction Trade Reports, where applicable, to the SIP in order to maintain correct consolidated Last Sale data. The inbound message will contain an Originator Id of one of the Participants.

The original trade targeted for correction must be identified by *origTradeId*.

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Reject	26	Unknown Security Id
Trading Identifier matches expected (validation failure = greater than what is expected)	Reject	92	Unexpected Trade Id. Trade id will not be consumed.
Trading Identifier matches expected (verification failure = less than what is expected)	Reject	92	Unexpected Trade Id. Trade id will not be consumed.
Original Trade Id matches a trade record	Reject	73	Trade Doesn't Match
Original Trade Through Exempt Flag is within the valid character set	Disconnect	87	Invalid Trade Through Exempt Flag
Original Trade Through Exempt Flag matches original trade record.	Reject	73	Trade Doesn't Match
Original Sale Condition is within the valid character set	Disconnect	31	Invalid Condition
Original Sale Condition matches original trade record.	Reject	73	Trade Doesn't Match
Original Seller Sales Day matches original trade record.	Reject	73	Trade Doesn't Match
Side of Execution is within the valid character set	Disconnect	33	Invalid Execution Side
~~Side of Execution matches original trade record.~~	~~Reject~~	~~73~~	~~Trade Doesn't Match~~
Original Trade Price matches original trade record.	Reject	73	Trade Doesn't Match
Original Trade Volume matches original trade record.	Reject	73	Trade Doesn't Match
New Trade Through Exempt Flag is within the valid character set	Disconnect	87	Invalid Trade Through Exempt Flag
New Trade Through Exempt Flag is an acceptable exempt flag value	Reject	87	Invalid Trade Through Exempt Flag
New Sale Condition is within the valid character set	Disconnect	31	Invalid Condition
New Sale Condition contains acceptable sale condition values	Reject	31	Invalid Condition
New Sale Condition values are in proper buckets	Reject	31	Invalid Condition
New Sale Condition and Trade Through Exempt Flag combination is invalid	Reject	31	Invalid Condition
New Seller Sales Day is a valid value	Reject	32	Invalid Number of Days field a. The condition field is R and the Seller days is 2-60. All other conditions it should be 0.
New Trade Price is in range	Reject	28	Invalid Price
New Volume is valid	Reject	29	Invalid Volume a. Report Volume is zero and sale condition does not equal "M" or "Q"

			b. Report contains volume of less than a round lot and sale condition does not equal "I" c. Sale Condition "9" received from Listing Market with Volume Other than Zero (0)
Validate time for submitting Trade Report	Reject	82	Invalid Reporting Time a. Trade Report with sale condition "9" received prior to allowable reporting time.
System is Open	Reject	11	System Not Open a. Trade Report sent before SOD disseminated b. Trade Report sent after Participant EOPR c. Trade Report sent after EOD

2.4.2.4   Fractional As/Of Trade Report Message (TQ)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	T – Inbound Trade Messages (Trade Line Only)
msgType	2	1	byte	Q – Fractional As/Of Trade Report Message
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
symbol	29	11	byte[]	Security Identifier
tradeId	40	4	int	Trade Id of As/Of Trade
ttExempt	44	1	byte	Trade Through Exempt Flag
trcond	45	4	byte[]	Sale Condition
ssday	49	2	short	Seller Sales Day
side	51	1	byte	Side of execution
price	52	8	long	Trade Price
volume	60	8	long	Trade volume (implied 6 decimals)
tradeTime	68	8	long	Time of trade (may be prior day, format is nanoseconds since Epoch)
reversal	76	1	byte	Reversal Indicator
Total Length	**77**			

Participants may submit As/Of type transactions to the SIP. The inbound message will contain an Originator Id of one of the Participants.

Timestamp1 will not be validated for As/Of trades and will be passed through directly to the outbound vendor data feeds.

Participants should not increment current day *tradeId* sequence when sending an As/Of Trade. There is no verification of the *tradeId* it will be passed through and published directly to the outbound vendor data feeds.

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
~~Security Identifier is not available in SIP~~	~~Reject~~	~~26~~	~~Unknown Security Id~~
Trade Through Exempt Flag is within the valid character set	Disconnect	87	Invalid Trade Through Exempt Flag
Trade Through Exempt Flag is an acceptable exempt flag value	Reject	87	Invalid Trade Through Exempt Flag
Sale Condition is within the valid character set	Disconnect	31	Invalid Condition
Sale Condition contains acceptable sale condition values	Reject	31	Invalid Condition
Sale Condition values are in proper buckets	Reject	31	Invalid Condition
Sale Condition and Trade Through Exempt Flag combination is invalid	Reject	31	Invalid Condition
Seller Sales Day is a valid value	Reject	32	Invalid Number of Days field a. The condition field is R and the Seller days is 2-60. All other conditions it should be 0.
Side of Execution is within the valid character set	Disconnect	33	Invalid Execution Side
Side of Execution contains acceptable side of execution value	Reject	33	Invalid Execution Side
Trade Price is in range	Reject	28	Invalid Price
Volume is valid	Reject	29	Invalid Volume a. Report Volume is zero and sale condition does not equal "M" or "Q" b. Report contains volume of less than a round lot and sale condition does not equal "I" c. Sale Condition "9" received from Listing Market with Volume Other than Zero (0)
tradeTime is prior to the present session date	Reject	60	Invalid Date and Time
Reversal indicator is within the valid character set	Disconnect	76	Invalid Reversal Indicator
Reversal indicator contains acceptable reversal indicator values	Reject	76	Invalid Reversal Indicator
Validate time for submitting Trade Report	Reject	82	Invalid Reporting Time a. Trade Report with sale condition "9" received prior to allowable reporting time.
System is Open	Reject	11	System Not Open a. Trade Report sent before SOD disseminated b. Trade Report sent after Participant EOPR c. Trade Report sent after EOD

2.5   Administrative Messages

2.5.1   General Administrative Message (AA)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Inbound Admin Messages
msgType	2	1	byte	A – General Administrative Message
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Participant's Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
textLen	29	2	short	Text Len
text	31	var	varbyte[]	Text – Length is contained in the textLen field

A General Administrative Message delivers information to Participants that normally does not get categorized into one of the other messages outlined in the specification. The inbound message will contain an Originator Id of one of the Participants.

Text exceeding the 300 byte maximum will be viewed as a syntax error. A reject will be sent back, and **the port will be disconnected**. This is new behavior compared to the original ASCII specification which would truncate to 300 bytes.

Validation Description	Reject Action	Reject Code	Note
Text Length value is less than 301.	Disconnect	37	Invalid Message Format
Text field length matches textLen.	Disconnect	37	Invalid Message Format
Text is within the valid character set	Disconnect	37	Invalid Message Format
System is Open	Reject	11	System Not Open a. Message sent after EOD

2.5.2 Trading Action Message (AO)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Inbound Admin Messages
msgType	2	1	byte	O – Trading Action Message
orig	3	2	byte[]	Originating Participant (QU only)
timestamp1	5	8	long	Participant's Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
symbol	29	11	byte[]	Security Identifier
action	40	1	byte	Trading Action Code (only H/Q/T/P codes allowed)
actionSequence	41	4	int	Trading Action Sequence Number
actionTime	45	8	long	Time Action occurred (may be prior day, format is nanoseconds since Epoch)
reason	53	6	byte[]	Reason for the Trading Action

A Trading Action Administrative Message will inform Participants of halts and other market events in the **primary** Market. The inbound message to the SIP will consist of an Originator Id participant of "QU" (NASDAQ). Upon receipt of a Trading Action Message that signifies a Trading Halt or trading pause, all Participants must discontinue delivering quote data to the SIP for that issue.

The *actionSequence* is a sequence number that consists of a consecutive sequence of positive integers starting at 1. This sequence is on a per symbol basis. This sequence is used to de-dup trading action messages sent on both the participant quote and trade input lines. If the *actionSequence* is less than the expected sequence number it will be ignored as a duplicate. The actionSequence will be reset to 1 at SOD.

The SIP will carry over any halt (H), quoting (Q), or trading (T) states which are still in effect at the end of the day. The states carried over to the next day will not be disseminated, and the Trading Action Sequence will not be incremented.

The length of a trading halt or trading pause can vary from issue to issue. If a trading halt spans multiple days, the primary Exchange will send a Trading Action Message at the start of the business day in order to signify the halt is continuing. This trading action will be disseminated and the Trading Action Sequence will be incremented.

Volatility Pause (P) will be automatically reset to Trading (T) at start of day. The change of trading state will not be disseminated, and the Trading Action Sequence will not be incremented.

If the Listing Market sends a Trading Action with a Trading action code which is already effective, the SIP will accept the message and increment the Trading Action Sequence. If the Trading Action Reason has changed the trading action will be disseminated.

When an issue is ready to resume quoting, the primary market will issue a new Trading Action Message that will indicate when quoting from Participants will be permitted.

It is not allowed to go from Trading (T) state to Quoting (Q), and such as transition will be rejected. All other transitions are allowed.

The following trading actions are supported by the Trading Action Message with descriptions of what actions occur with each:

Description	Value
Trading Halt Security Halted, Quote is Zeroed, New Quotes are Rejected	H
Quotation Resumption New Quotes are Allowed	Q
Trading Resumption Security is Un-Halted	T
Volatility Trading Pause	P

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Reject	26	Unknown Security Id
Trading Action is within the valid character set	Disconnect	88	Invalid Action
Trading Action is an acceptable trading action value	Reject	88	Invalid Action
Trading Action is allowed in the present state	Reject	89	Trading Action Not Allowed
Trading Action Sequence Number matches expected (validation failure = greater than what is expected)	Reject	93	Unexpected Trading Action Sequence
Trading Action Sequence Number matches expected (verification failure = less than what is expected)	Drop Msg	None	Message is considered a duplicate and dropped.
Reason is within the valid character set	Disconnect	77	Invalid Reason
Reason is an acceptable reason value	Reject	77	Invalid Reason
Reason is allowed in the present state	Reject	77	Invalid Reason

System is Open	Reject	11	System Not Open
			  a. Trading Action sent before SOD disseminated
			  b. Trading Action sent after EOD

2.5.3　Market Center Trading Action Message (AJ)

Name	Offset	Length	Type	Notes
Version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Inbound Admin Messages
msgType	2	1	byte	J – Market Center Trading Action
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Participant's Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
symbol	29	11	byte[]	Security Identifier
action	40	1	byte	Trading Action Code (only H/Q/T/W)
actionTime	41	8	long	Time Action occurred (may be prior day, format is nanoseconds since Epoch)

The Market Center Trading Action (*AJ*) message is only allowed on Participant Quote Input lines. Arrival of an *AJ* message on a Trade Input Line will result in immediate disconnect. Upon successfully processing the Market Center Trading Action the SIP shall return a Market Center Trading Action Acknowledgement (aJ) to the input line.

A Market Center Trading Action Administrative Message is used by a Participant to halt trading in an issue for their Market Center only, resulting from a system issue or from a market center specific regulatory event.   It is also used to wipeout a market center's quotes if needed.

The inbound message to the SIP will consist of an Originator Id of one of the Participants.

The SIP will reset all Market Center Trading Action States at the end of the day. Any changes in state will not be disseminated.

The length of time for a market center trading halt can vary from issue to issue. If a trading halt spans multiple days, the Market Center will send the Market Center Trading Action Message at the start of the business day in order to signify the halt is continuing for that day. When an issue is ready to resume quoting and/or trading, the Market Center will issue a new Market Center Trading Action Message that will indicate when quoting and/or trading will be permitted.

For certain actions a quote wipe-out is performed. The quote will be zeroed out for the security. This will be used when a Participant requires the removal of a quote(s) due to technical reasons.

As part of the quote wipeout procedure, Participants may also request that quotes for the affected issue(s) updated during the tenure of the wipeout be prohibited from reaching the SIP quote process until further notice from the Participant.

The following trading actions are supported by the Market Center Trading Action Message with descriptions of what actions occur with each:

Description	Value	Valid Transitions
Trading Halt Security Halted, Quote is Zeroed, New Quotes are Rejected	H	Q T (Q is assumed, and will be processed first)
Quotation Resumption, including after Emergency Market Action New Quotes are Allowed	Q	T
Trading Resumption Security is Un-Halted	T	Any
Wipeout Quote Quote is Zeroed	W	N/A (no resumption needed)

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Reject	26	Unknown Security Id
Trading Action is within the valid character set	Disconnect	88	Invalid Action
Trading Action is an acceptable trading action value	Reject	88	Invalid Action
Trading Action is allowed in the present state	Reject	89	Trading Action Not Allowed
actionTime is within an appropriate range	Reject	60	Invalid Date and Time

System is Open	Reject	11	System Not Open
			  a. Market Center Trading Action sent before SOD disseminated
			  b. Market Center Trading sent after Participant EOPR
			  c. Market Center Trading sent after EOD

2.5.4 Market Center Mass Trading Action Message (AU)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Inbound Admin Messages
msgType	2	1	byte	U – Market Center Mass Trading Action
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
firstSecurity	29	11	byte[]	First Security
lastSecurity	40	11	byte[]	Last Security
action	51	1	byte	Trading Action Code (only Q/W/E allowed)
actionTime	52	8	long	Time Action occurred (may be prior day, format is nanoseconds since Epoch)

Market Center Mass Trading Action (*AU*) is only allowed on Participant Quote Input lines. Arrival of an *AU* message on a Trade Input Line will result in immediate disconnect. No acknowledgement message (aJ) shall be sent to the participant input lines. No Market Center Trading Action Message (AK) shall be disseminated on the UQDF or UTDF data feeds.

The SIP will reset all Market Center Trading Action States at the end of the day. Any changes in state will not be disseminated.

In order to allow for market center trading actions on multiple securities, the Market Center Mass Trading Action Message (AU) is supported. This message allows applying some Market Center Trading Actions to a range of symbols. Only Q, W, and E Trading Action Codes can be submitted via this message.

Symbol Range Specification
For a range command, the issue symbol (*firstSecurity*, *lastSecurity*) denote the alphabetic range for the first and last issues affected by the command and do not need to exactly match the issue symbol(s) being affected. If the participant enters a partial issue symbol value the SIP recognizes that the Participant intends to match the lexical range of values.

For example if the Participant enters "A" in the *firstSecurity* field, the SIP assumes the start of the alphabetic range is "A" (A followed by 10 spaces); if the participant enters in "ABC" in the *firstSecurity* field the SIP assumes the start of the alphabetic range is "ABC   "(ABC followed by 8 spaces). Likewise, the ranges stated in the *lastSecurity* follow the same logic. If the participant enters "B" in the *lastSecurity* field the SIP assumes the values through "B", if the Participant enters "BCD" in the *lastSecurity* field the SIP assumes the range is through "BCD" (BCD followed by 8 spaces).

Specifying *firstSecurity* as "A" and *lastSecurity* as "ZZZZZZZZZZZ" will effectively apply the action to **all** of that Participant's quotes in **all** securities.

If an individual security in the range is not in the proper state for allowing the Trading Action to be applied, it will not be applied and no reject response will be generated.

The following trading actions are supported by the Market Center Mass Trading Action Message with descriptions of what actions occur with each:

Description	Value	Valid Transition
Quotation Resumption, including after Emergency Market Action New Quotes are Allowed	Q	N/A (no transition needed)
Wipeout Quote Quote is Zeroed	W	N/A (no resumption needed)
Emergency Market Action: Wipeout and Reject New Quotes Quote is Zeroed, New Quotes are Rejected	E	Q

Validation Description	Reject Action	Reject Code	Note
First Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Second Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Trading Action is within the valid character set	Disconnect	88	Invalid Action
Trading Action is an acceptable trading action value	Reject	88	Invalid Action
Trading Action is allowed in the present state	None	None	If a security is not in the correct state for the trading action, it will not be applied, and no reject will occur.
tradeTime is within an appropriate range	Reject	60	Invalid Date and Time
System is Open	Reject	11	System Not Open a. Market Center Trading Action sent before SOD disseminated b. Market Center Trading sent after Participant EOPR c. Market Center Trading sent after EOD

2.5.5 Reg SHO Short Sale Price Test Restricted Indicator Message (AV)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Inbound Admin Messages
msgType	2	1	byte	V – Reg SHO Short Sale Price Test Restricted Indicator
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Participant's Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
symbol	29	11	byte[]	Security Identifier
action	40	1	byte	Reg SHO Short Sale Restricted Action

A Reg SHO Short Sale Price Test Restricted Indicator message will inform Participants when an issue has breached the Short Sale Price Test threshold. The inbound message to the SIP will consist of an Originator Id from the listing participant ("QU" for Nasdaq).

Upon receipt of a Reg SHO Short Sale Price Test Restricted Indicator Message, all Participants must discontinue delivering of short sale trade data to the SIP for that issue unless it meets the SEC or SRO exemption requirements. It is the responsibility of each Participant to validate that the trade report meets the new Short Sale rules prior to submission to the SIP.

The length of a trading restriction will generally remain in effect for the remainder of the current trading day and for the next trading day. However, there can be situations where the trading restriction was enacted due to erroneous activity and the listing market may submit a Reg SHO Short Sale Price Test Restricted Indicator release. If a trade restriction spans multiple days, the listing market will send a new Reg SHO Short Sale Price Test Restricted Indicator Message at the start of the business day in order to signify the trading restriction is still in effect.

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Reject	26	Unknown Security Id
Reg SHO Action is within the valid character set	Disconnect	88	Invalid Action
Reg SHO Action is an acceptable Reg SHO action value	Reject	88	Invalid Action
System is Open	Reject	11	System Not Open a. Reg SHO indicator sent before SOD disseminated b. Reg SHO Indicator sent after EOD

2.5.6 Opening Reference Midpoint Price Message (AM)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Inbound Admin Messages
msgType	2	1	byte	M – Opening Reference Midpoint
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Participant's Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
symbol	29	11	byte[]	Security Identifier
price	40	8	long	Opening reference midpoint price

An Opening Reference Midpoint Message will inform the SIP of the listing markets midpoint reference price required by the SIP as part of the LULD calculation requirements. The inbound message to the SIP will consist of an Originator ID participant of "QU" (NASDAQ).

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Reject	26	Unknown Security Id
Price is in range	Reject	28	Invalid Price
System is Open	Reject	11	System Not Open a. Opening Reference Midpoint Price sent before SOD disseminated b. Opening Reference Midpoint Price sent after Participant EOPR c. Opening Reference Midpoint sent after EOD

2.5.7 T1 Adjusted Closing Price Message (AN)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Inbound Admin Messages
msgType	2	1	byte	N – T1 Adjusted Closing Price
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Participant's Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
symbol	29	11	byte[]	Security Identifier
price	40	8	long	T1 Adjusted Closing Price

A T1 Adjusted Closing Price Message will inform the SIP of the listing markets closing price required by the SIP as part of the LULD calculation requirements. The listing market shall send this message for all the symbols including the halted symbols, after the SOD event from SIP. SIP will update the closing price and the related parameters for the LULD process. The T1 Adjusted Closing Prices shall be used in the LULD process to determine the price band percentages as per the Price Band Percentage Table. The inbound message to the SIP will consist of an Originator ID participant of "QU" (NASDAQ).

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Reject	26	Unknown Security Id
Price is in range	Reject	28	Invalid Price
System is Open	Reject	11	System Not Open a. T1 Adjusted Closing Price sent before SOD disseminated b. T1 Adjusted Closing Price sent after Participant EOPR c. T1 Adjusted Closing Price sent after EOD

2.5.8 Market Open Message (AX)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Inbound Admin Messages
msgType	2	1	byte	X – Market Open Message
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Participant's Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token

The Market Open Message should be transmitted to indicate when a participant quotes should be marked as opened. Prior to the receipt of the Market Open message, all quotations are considered closed. Upon receipt of the Market Open message, quotations that have been transmitted during the current day prior to the receipt of the Market Open will be considered opened. The message should contain the Originator Id value of the Participant opening the market.

If a Participant delivers a Market Open Message to the SIP, it is required that the Participant also delivers a Market Closed Message when that Participant's market has closed for the day.

Validation Description	Reject Action	Reject Code	Note
System is Open	Reject	11	System Not Open a. Market Open sent before SOD disseminated b. Market Open sent after Participant EOPR c. Market Open sent after EOD

2.5.9   Market Closed Message (AY)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Inbound Admin Messages
msgType	2	1	byte	Y – Market Closed message
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Participant's Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token

The Market Closed message should be sent by the Exchange Participant to indicate that the trading session is ready to close. The message should contain the Originator Id value of the Participant closing the market. If a Participant has delivered a Market Open Message to the SIP, it is required that the Participant also delivers the Market Closed Message when the Participants market has closed for the day.

If the Participant attempts to deliver a Market Closed message, they must have previously delivered a Market Open message.

Validation Description	Reject Action	Reject Code	Note
Market Center is Open	Reject	62	Market Open Message Not Received
System is Open	Reject	11	System Not Open a. Market Close sent before SOD disseminated

2.5.10 Auction Collar Message (AE)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	A – Inbound Admin Messages
msgType	2	1	byte	E – Auction Collar Message
orig	3	2	byte[]	Originating Participant (QU only)
timestamp1	5	8	long	Participant's Timestamp
feedSequence	13	8	long	Message Sequence Number
partToken	21	8	long	Participant Token
symbol	29	11	byte[]	Security Identifier
actionSequence	40	4	int	Trading Action Sequence Number
CollarReferencePrice	44	8	long	Reference price used to set collar
CollarUpPrice	52	8	long	Collar Up Price
CollarDownPrice	60	8	long	Collar Down Price
CollarExtension	68	1	byte	Collar Extension Indicator

Primary markets using an automated reopening will calculate new Auction Collars, in compliance with rules around prices for re-opening, when applicable and publish this new Auction Collar Message (Category A – Type E) to SIP on both quote and trade input ports. The message shall contain the next expected action sequence for the symbol.

The initial Auction Collars will be published immediately after the LULD Trading Pause.

Subsequent Auction Collars will be published approximately every five minutes, while in an LULD Trading Pause, until the primary market is able to reopen.

The collar extension indicator will be used to reflect when a new collar has been published. The first collar extension, at the time of the pause, will be set to zero indicating the first collar message and will increment by 1 for each new message received by the primary market and disseminated via the SIP, during the pause event.

Should a security have multiple pause events during the trading day, at every new pause, the collar extension indicator is reset to zero by the primary market.

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Reject	26	Unknown Security Id
Trading Action Sequence Number matches expected (validation failure = greater than what is expected)	Reject	93	Unexpected Trading Action Sequence
Trading Action Sequence Number matches expected (verification failure = less than what is expected)	Drop Msg	None	Message is considered a duplicate and dropped.
Symbol is in a LULD Pause state	Reject	89	Trading Action Not Allowed

Collar Reference price is in range	Reject	28	Invalid Price –
			    Price is greater than
			    $9,223,372,036,854.775807

Collar down price is in range	Reject	28	Invalid Price –
			    Price is greater than
			    $9,223,372,036,854.775807

Collar up price is in range	Reject	28	Invalid Price –
			    Price is greater than
			    $9,223,372,036,854.775807

System is Open	Reject	11	System Not Open
			a. Auction Collar sent
			    before SOD
			    disseminated
			b. Auction Collar sent
			    after EOD

2.6   Control Messages

Control Messages are utilized to inform the user(s) of various conditions and events during the trading day.

Certain Control Messages are delivered by the Participants to the SIP. Participants that plan to deliver traffic across multiple lines (channels) should be prepared to send Control Messages across all lines (channels) utilized for Quote Messages. For example, if a Participant splits message traffic via an alphabetic split of A-J on one line (channel) and K-Z on a second line (channel) then all Control Messages sent by the Participant to the SIP are expected to be delivered across both lines (channels).

2.6.1   Sequence Inquiry Message (CC)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	C – Inbound Control Messages
msgType	2	1	byte	C – Sequence Inquiry message
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Participant's Timestamp
feedSequence	13	8	long	0 – Message Sequence Number
partToken	21	8	long	0 – Participant Token

The Sequence Inquiry message will be used by Participants for message sequence number synchronization purposes. The SIP, upon receipt of this message, will transmit back to the inquiring system a Sequence Number Inquiry Response message (cC) containing the sequence number of the **next expected** sequence number by the SIP, as well as the present state of the SIP.   The inbound message will contain an Originator Id of one of the Participants.

The timestamp1, feedSequence and partToken are ignored and should be set to 0 in this message. There is no port state affected by this message, it is purely an informational inquiry.

Validation Description	Reject Action	Reject Code	Note
			No message specific fields to validate.

2.6.2 Symbol State Inquiry Message (CS)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	C – Inbound Control Messages
msgType	2	1	byte	S – Symbol State Inquiry Message
orig	3	2	byte[]	Originating Participant
timestamp1	5	8	long	Participant's Timestamp
feedSequence	13	8	long	0 – Message Sequence Number
partToken	21	8	long	0 – Participant Token
symbol	29	11	byte[]	Security Identifier

The Symbol State Sequence Inquiry message will be used by Participants for symbol state synchronization purposes. The SIP, upon receipt of this message, will transmit back to the inquiring system a Symbol State Inquiry Response message (cS) containing the next expected action sequence number, the next expected trade id, and the present state of the security id. The next expected trade id will always be set to zero for quote lines. The inbound message will contain an Originator Id of one of the Participants.

The timestamp1, feedSequence and partToken are ignored and should be set to 0 in this message. There is no port state affected by this message, it is purely an informational inquiry.

If the *symbol* is not recognized by the SIP an **unsequenced** reject message (aR) will be sent back to the participant with the appropriate error code.

Validation Description	Reject Action	Reject Code	Note
Security Identifier is within the valid character set	Disconnect	26	Unknown Security Id
Security Identifier is not available in SIP	Unseq Reject	26	Unknown Security Id

3   Return Messages (Sent from SIP to Participant)

3.1   Return Header

All return messages precede each message specific data section with the return message header.

Name	Offset	Length	Type	Notes
version	0	1	byte	Protocol Version
msgCategory	1	1	byte	Message Category
msgType	2	1	byte	Message Type
orig	3	2	byte[]	Originating Participant
sipTime	5	8	long	Sip Timestamp

The return message header contains a one-byte alpha *version* field to allow for each message format to be updated, while still supporting previous versions of a message during transition.

The *orig* field (Originating Participant) represents the Market (or Processor) responsible for generating the message on the Participant Line.

The *sipTime* field is the timestamp the SIP generated the message. The timestamp is the number of nanoseconds since Epoch. The value is a long numeric.

3.2   Administrative Messages

3.2.1   General Administrative Message (aA)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	a – Administrative Messages
msgType	2	1	byte	A – General Administrative Message
orig	3	2	byte[]	Originating Participant
sipTime	5	8	long	Sip Timestamp
textLen	13	2	short	Text Length
text	15	var	varbyte[]	Text – Length is contained in the textLen field

A General Administrative Message delivers information to Participants that normally does not get categorized into one of the other messages outlined in the specification. The Originator Id value will be "SU".

3.2.2   Market Center Trading Action Acknowledgement Message (aJ)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	a – Administrative Messages
msgType	2	1	byte	J – Market Center Trading Action
orig	3	2	byte[]	Originating Participant
sipTime	5	8	long	Sip Timestamp
symbol	13	11	byte[]	Security Identifier
action	24	1	byte	Trading Action
actionTime	25	8	long	Time Action occurred (may be prior day, format is nanoseconds since Epoch)

The Market Center Trading Action Acknowledgement Message (aJ) is used to acknowledge a Market Center Trading Action to the Market Center which is impacted. The Acknowledgement message will be sent back to the input line on which the Market Center Trading Action (AJ) was received. If the Market Center Trading Action (AJ) is entered by the administrative user interface, then the acknowledgement will be sent to all input lines for the impacted market center.

In the case of a Mass Action (AU), **NO** acknowledgement will be sent.

The *orig* value will be the Originating Participant who issued the Market Center Trading Action (AJ). If the Market Center Trading Action (AJ) is issued by the administrative user interface, then the orig value will be the Market Center ID of the Market Center which is impacted.

3.2.3 Market Open Message (aX)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	a – Administrative Messages
msgType	2	1	byte	X – Market Open Message
orig	3	2	byte[]	Originating Participant
sipTime	5	8	long	Sip Timestamp

The Market Open Message will be transmitted by the SIP upon processing the Market Open Message (AX) from the market participant in order to notify participants that the market is open. The *orig* field will contain the Originating Participant who published the Market Open Message (AX).

3.2.4 Market Closed Message (aY)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	a – Administrative Messages
msgType	2	1	byte	Y – Market Closed Message
orig	3	2	byte[]	Originating Participant
sipTime	5	8	long	Sip Timestamp

The Market Closed message will be transmitted by the SIP upon processing the Market Closed Message (AY) from the market participant in order to notify participants that the market is closed. The *orig* field will contain the Originating Participant who published the Market Closed Message (AY).

3.2.5 Reject Message (aR)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	a – Administrative Messages
msgType	2	1	byte	R – Reject Message
orig	3	2	byte[]	SU – Originates from the SIP
sipTime	5	8	long	SIP Timestamp
feedSequence	13	8	long	Inbound Feed Sequence Number of the Rejected Message
partToken	21	8	long	Participant Token of the Rejected Message
rejectCode	29	2	short	Error Code for the First Diagnosed Error
syntaxViolation	31	1	byte	Syntax Violation Flag

A SoupTCP4.0 **unsequenced** Reject Message will be returned prior to **disconnection of the port**, if a syntactical error is detected on an inbound message. The *feedSequence* number included on the inbound message **will not** be consumed, and the client will need to make sure they adjust accordingly. The *syntaxViolation* flag will be set to 'Y' in this case. Both the partToken and feedSequence will be 0 for syntactical errors, as there is no guarantee that any part of the message is valid.

A SoupTCP4.0 **sequenced** Reject Message will be returned, if the present state of the SIP system, or the security being acted upon, doesn't allow the inbound action to be performed. These messages **will** consume the inbound feed sequence number, and the port **will not** be disconnected. The *syntaxViolation* flag will be set to 'N' in this case.

A SoupTCP4.0 **unsequenced** Reject Message will be returned if there is an issue with an inbound **inquiry** message. The *syntaxViolation* flag will be set to 'Y', if the inquiry reject is a syntax violation, and 'N' if it is not.

3.2.6   Sequence Acknowledgement Message (aK)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	a – Administrative Messages
msgType	2	1	byte	K – Sequence Acknowledgement Message
orig	3	2	byte[]	SU – Originates from the SIP
sipTime	5	8	long	Sip Timestamp
feedSequence	13	8	long	Inbound Feed Sequence Number of the Original Message
partToken	21	8	long	Participant Token of the Original Message (0 if none sent originally)

Input ports can be configured to send back acknowledgements for all input messages. This will allow for positive acknowledgment to participants that the SIP has properly accepted their messages. When a port is configured for acknowledgments, they will also be a part of the SoupTCP4.0 message store and rewind. If the port is not configured for acknowledgements, they will not be sent to the participant.

3.3   Control Messages

Control Messages are utilized to inform the user(s) of various conditions and events during the trading day. Control Messages generated from the SIP will be sent to recipients on all lines (channel) employed by the recipient.

3.3.1   Start Of Day Message (cE)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	c – Control Message
msgType	2	1	byte	E – Start Of Day
Orig	3	2	byte[]	SU – Originates from the SIP
sipTime	5	8	long	Sip Timestamp

This message will be transmitted by the SIP to the Exchange Participants to indicate that the SIP is open and ready to receive messages from the participants. This message will contain an Originator Id of "SU" for the SIP.

3.3.2   End Of Day Message (cF)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	c – Control Message
msgType	2	1	byte	F – End Of Day
Orig	3	2	byte[]	SU – Originates from the SIP
sipTime	5	8	long	Sip Timestamp

This message will be transmitted by the SIP to the Exchange Participants to indicate that it has no data or control messages for the receiving Exchange Participants and is shutting down for the day. This message will contain an Originator Id of "SU" for the SIP.

3.3.3   Sequence Inquiry Response Message (cC)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	c – Control Message
msgType	2	1	byte	C – Sequence Inquiry Response Message
Orig	3	2	byte[]	SU – Originates from the SIP
sipTime	5	8	long	Sip Timestamp
feedSequence	13	8	long	Next Expected Sequence Number
partToken	21	8	long	Last Participant Token received by the SIP
sipState	29	1	byte	Present SIP State (None/Started/Ended)

This SoupTCP4.0 **unsequenced** message will be sent to an Exchange Participant as a response to a Sequence Inquiry. The outbound message will contain an originator Id of "SU" for the SIP.

The *feedSequence* will include the **next expected** sequence number of the next inbound message.

The *partToken* will include the last Participant Token received in the last correctly processed inbound message.

The *sipState* will include the present state of the SIP for processing. This will allow Participants to know whether the SOD or EOD messages have occurred.

3.3.4   Symbol State Inquiry Response Message (cS)

Name	Offset	Length	Type	Notes
version	0	1	byte	1 – Protocol Version
msgCategory	1	1	byte	c – Control Message
msgType	2	1	byte	S – Symbol State Inquiry Response Message
Orig	3	2	byte[]	SU – Originates from the SIP
sipTime	5	8	long	Sip Timestamp
symbol	13	11	byte[]	Security Identifier
nextTradeId	24	4	int	Next Expected Trade Id; 0 for Quote lines.
nextActionSequence	28	4	int	Next Expected Action Sequence
symbolState	32	1	byte	Symbol Trading Status

This SoupTCP4.0 **unsequenced** message will be sent to an Exchange Participant as a response to a Symbol State Inquiry. The outbound message will contain an originator Id of "SU" for the SIP.

The *symbol* field is the identifier for the security inquired for.

The *nextTradeId* will include the **next expected** *tradeId* of the next inbound trade. This will be zero for quote lines.

The *nextActionSequence* will include the **next expected** *actionSequence* of the next inbound trade action message.

The *symbolState* will include the present state of the security for processing. This will allow Participants to know whether the symbol is presently Trading, Quoting, Paused, or Halted.

4   Code Definitions

4.1   Originating Participants

The following values represent the registered national securities association and national securities exchanges that are eligible to participate in the UTP Plan for Nasdaq Listed securities.

Description	Participant Value
NYSE American, LLC	AU
Nasdaq BX, Inc	BU
NYSE National, Inc	CU
MIAX Pearl, LLC	HU
International Securities Exchange, LLC	IU
Cboe Global Markets, Inc (EDGA Equities)	JU
Cboe Global Markets, Inc (EDGX Equities)	KU
Long-Term Stock Exchange	LU
Chicago Stock Exchange, Inc	MU
FINRA Alternative Display Facility (ADF)	ND
New York Stock Exchange LLC *	NU
NYSE Arca, Inc.	PU
Nasdaq Stock Market, LLC *	QU
MEMX LLC	UU
Investors' Exchange, LLC	VU
Cboe Global Markets, Inc (Cboe)	WU
Nasdaq PSX	XU
Cboe Global Markets, Inc (BYX Equities)	YU
Cboe Global Markets, Inc (BZX Equities)	ZU
Securities Information Processor (SIP)	SU
FINRA / NYSE TRF	NL
FINRA / Nasdaq TRF Carteret	QL
FINRA / Nasdaq TRF Chicago	BL

A FINRA Trade Reporting Facility (TRF) provides FINRA members with a mechanism for the reporting of transactions effected otherwise than on an exchange. Each FINRA TRF is affiliated with a registered national securities exchange; each FINRA TRF is a FINRA facility and is subject to FINRA's registration as a national securities association; a national securities exchange may establish multiple TRF's.

4.2   Quote Condition Code

Description	Value
*Manual Ask, automated Bid	A
*Manual Bid, automated Ask	B
Fast trading	F
*Manual Bid and Ask	H
Order imbalance	I
Closed quote	L
Non-firm quote	N
*Opening quote automated	O
*Regular, two-sided open quote automated	R
Manual Bid and Ask (non-firm)	U
Order influx	X
*Automated bid, no offer; or automated offer, no bid	Y
No open/no resume	Z
Intraday Auction	4

*Indicates that quotation including this quote condition is NBBO eligible.

4.3   Retail Interest Code

Description	Value
Retail Interest Not Applicable	<space>
Retail Interest On Bid Quote	A
Retail Interest On Ask Quote	B
Retail Interest On both Bid and Ask Quote	C

4.4   FINRA BBO Indicator

Description	Value
No FINRA BBO Change	A
No FINRA BBO Exists	B

4.5   Reg SHO Action Code

Description	Value
No price test in effect	0
Reg SHO in effect due to an intra day price drop in security	1
Reg SHO Restriction remains in effect	2

4.6   Trade Side Code

Description	Value
Buy	B
Sell	S
Cross	X
Short Sale	R

4.7   Trade Through Exempt Code

Description	Value
611 Trade Through Exempt	X
Not 611 Trade Through Exempt	<space>

4.8   Trade Condition Table

Modifier	Condition	Modifier	Condition
@	Regular Sale	S	Split Trade
A	Acquisition	T	Form T
B	Bunched Trade	U	Extended trading hours (Sold Out of Sequence)
C	Cash Sale	V	Contingent Trade
D	Distribution	W	Average Price Trade
E	Placeholder	X	Cross / Periodic Auction Trade
F	Intermarket Sweep	Y	Yellow Flag Regular Trade
G	Bunched Sold Trade	Z	Sold (out of sequence)
H	Price Variation Trade	1	Stopped Stock (Regular Trade)
I	Odd Lot Trade		
K	Rule 155 Trade (AMEX)		
L	Sold Last	4	Derivatively priced
M	Market Center	5	Re-Opening Prints
N	~~Next Day~~ Reserved	6	Closing Prints
O	Opening Prints	7	Qualified Contingent Trade ("QCT")
P	Prior Reference Price	8	Placeholder For 611 Exempt
Q	Market Center Official Open	9	Corrected Consolidated Close (per listing market)
R	Seller		

Level1 Byte: Settlement Type	Level2 Byte: Reason for TT Exemption	Level3 Byte: Extended Hours or Sold	Level4 Byte: SRO Trade Detail
@ = Regular Trade	F = Intermarket Sweep	T = Form T	1 = Stopped Stock
C = Cash	O = Opening Prints	L = Sold Last	A = Acquisition
N = ~~Next Day~~ Reserved	4 = Derivatively Priced	Z = Sold (Out of Sequence)	B = Bunched
R = Seller	5 = Re-Opening Prints	U = Extended trading hours – Sold Out of Sequence	D = Distribution
Y = Yellow Flag	6 = Closing Prints		E = Placeholder Future
	7 = Qualified Contingent Trade		G = Bunched Sold Trade
	8 = Placeholder For 611 Exempt		H = Price Variation
	9 = Corrected Consolidated Close (per listing market)		I = Odd Lot Trade
			K = Rule 155
			M = Market Center Official Close Price
			P = Prior Reference Price
			Q = Market Center Official Open Price
			S = Split Trade
			V = Contingent Trade
			W = Average Price Trade
			X = Cross/Periodic Auction Trade
	<Space>	<Space>	<Space>

4.8.1 Trade Condition and TT Exempt Combinations

Participant is required to submit the Reg NMS sale condition **trcond** data in proper byte location sequence and proper **ttExempt** flag as follows:

Scenario A: If the trade record is marked as 611 exempt (X) then the allowable four bytes values are as follows:

Trade Through Exempt 611 Exempt	Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
X	@, C, N, R, or Y	F, O, 4, 5, 6, 7, 8, 9, \<space>	T, L, Z, U, \<space>	1, A, B, D, E, G, H, I, K, M, P, Q, S, V, W, X, \<space>

Scenario B: If the trade record is marked as Not 611 exempt (space) then the allowable four bytes values are as follows:

Trade Through Exempt 611 Exempt	Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
\<space>	@, C, N, R, or Y	O, 5, 6, \<space>	T, L, Z, U, \<space>	1, A, B, D, E, G, H, I, K, M, P, Q, S, V, W, X, \<space>

4.8.2 Trade Condition Notes

Note 1: The Form T (T) Sale Condition should be applied for the following:
- Trades executed on trade day between 12:00 a.m. and 9:30 a.m.
- Trades executed on trade day between 4:00:01 p.m. and 8:00 p.m.

Note 2: The U Extended Hours (Sold out of sequence) Sale Condition should be applied when transactions executed during the following time periods are reported more than 90 seconds after execution.
- Trades executed on trade day between 12:00 a.m. and 9:30 a.m.
- Trades executed on trade day between 4:00:01 p.m. and 8:00 p.m.

Note 3: The Sale Condition "M", Market Center Close Price, is used to indicate the "official" closing value as determined by a market center. A message generated with this condition will contain the market center generated closing price. The "M" sale condition modifier shall only affect the market center closing/last sale value and will not affect the consolidated market value.

Note 4: The Sale Condition "Q", Market Center Open Price, is used to indicate the "official" open value as determined by a Market Center. A message generated with this condition will contain the Market Center generated open price. The "Q" sale condition shall only affect the Market Center open high/low values and will not affect any of the consolidated market values.

Note 5: Certain Participants utilize the .W sale condition (average price trades) to report stopped stock transactions. Because .W sale condition trades reflect other transaction prices, the trades with this sale condition will not affect the consolidated or market center high, low, or last sale prices. Volume statistics, however, will be impacted.

Note 6: Odd lot transactions will be rejected back to the participant via Error Code "Invalid Volume", for the following reasons:
- Invalid Volume
- Report Volume is zero and sale condition does not equal *"9"*, "**M**" or "**Q**"
- Report Volume contains volume less than a round lot *and sale condition does not equal "I"*

Note 7: The Sale Condition "Y", Yellow Flag, is used to convey periods of time when a Market Center may be experiencing technical difficulties. This sale condition will affect the Market Center and Consolidated last sale, high, low and volume values.

Note 8: The Sale condition "9", Corrected Consolidated Close (per listing market), will be allowed to be used only by the Listing Market and may be used to adjust the consolidated last sale price. The Corrected Consolidated Close will be eligible to set the High, Low and Last for the consolidated statistics and will not update the participant records. Volume will always be reported as zero and will appear in Level 2 of the extended sale condition modifier field on the UTDF and CTS data feeds. Corrected Consolidated Close transactions will be rejected back to participants for the following reasons:

Sale Condition "9" Processing scenario	Validation Processing
Sale Condition "9" Trades received before allowable reporting time of 30 seconds after market close	Invalid Reporting Time
Sale Condition "9" Trades received from non-listing market	Invalid User Origin
Sale Condition "9" Trades received from Listing Market with Volume Other than Zero (0)	Invalid Volume

4.9   Trade Cancel Type Code

Description	Value
Cancel	C
Error	E

4.10   Trade Reversal Type Code

Description	Value
Transaction represents a reversal	Y
Transaction does not represent a reversal	N

4.11 Trading Status Code

Description	Value
Trading Halt	H
Quotation Only	Q
Trading	T
Volatility Trading Pause	P

4.12 Trading Action Code

Description	Value
Trading Halt	H
Quotation Resumption, including revoke Emergency Market Action	Q
Trading Resumption	T
Volatility Trading Pause	P
Wipeout Quote	W
Emergency Market Action: Wipeout and Reject New Quotes	E

Note, "Wipeout Quote" (W) and "EMA Invoked" I are not allowed on Trading Action message.

4.13 Trading Action Reason Code

Description	Value
Halt News Pending	T1
Halt News Dissemination	T2
Single Stock Trading Pause In Affect	T5
Regulatory Halt Extraordinary Market Activity	T6
Halt ETF	T8
Trading Halted; For information requested by NASDAQ	T12
Halt Non Compliance	H4
Halt Filings Not Current	H9
Halt SEC Trading Suspension	H10
Halt Regulatory Concern	H11
Operations Halt, Contact Market Operations	O1
IPO Issue not yet Trading	IPO1
Corporate Action	M1
Quotation Not Available	M2
Volatility Trading Pause	LUDP
Volatility Trading Pause – Straddle Condition	LUDS
Market Wide Circuit Breaker Halt – Level 1	MWC1
Market Wide Circuit Breaker Halt – Level 2	MWC2
Market Wide Circuit Breaker Halt – Level 3	MWC3
Market Wide Circuit Breaker Halt – Carry over from previous day	MWC0
News and Resumption Times	T3
Single Stock Trading Pause/Quotation-Only Period	T7
Qualifications Issues Reviewed/Resolved; Quotations/Trading to Resume	R4
Filing Requirements Satisfied/Resolved; Quotations/Trading To Resume	R9
Issuer News Not Forthcoming; Quotations/Trading To Resume	C3
Qualifications Halt ended; maint. Req. met; Resume	C4
Qualifications Halt Concluded; Filings Met; Quotes/Trades To Resume	C9
Trade Halt Concluded By Other Regulatory Auth,; Quotes/Trades Resume	C11
New Issue Available	R1
Issue Available	R2
IPO security released for quotation	IPOQ
IPO security – positioning window extension	IPOE
Market Wide Circuit Breaker Resumption	MWCQ
Reason Not Available	<space>

4.14 SIP State

Description	Value
Before Start of Day (SOD)	N
After Start of Day (SOD), before End of Day (EOD)	S
After End of Day (EOD)	E

4.15 Input Error Codes

Description	Value
Invalid Message Type – msgCategory and msgType pair.	1

Invalid Originating Participant – orig is not a valid value.	2
Missing Message – The current Message Sequence Number is greater than expected. Port will be disconnected, as this is a protocol error.	7
System Not Open – Message sent in prior to SOD, after EOD, or after EOPR.	11
Unknown Security Id – symbol is not recognized by SIP, but is a valid format.	26
Invalid Trade Cancellation Type	27
Invalid Price – Price is not in range.	28
Invalid Volume – Volume value is not permitted. a. Report Volume is zero and sale condition does not equal "M" or "Q" b. Report contains volume of less than a round lot and sale condition does not equal "I" c. Sale Condition "9" received from Listing Market with Volume Other than Zero (0)	29
Invalid Condition – Incorrect Trade/Quote condition or combination.	31
Invalid Number of Days field – The condition field is equal to R and the Seller days is other than 2-60. All other conditions it should be 0.	32
Invalid Execution Side – The execution side is other than B(Buy), S(Sell), X(Cross), R(Short Sale)	33
Security Halted – A regulatory halt by the primary market is in effect for that symbol.	36
Invalid Message Format – format error in the message.	37
Invalid Size – Size is not in range	48
Invalid Date and Time – The time/date in the message is not within an acceptable range.	60
Market Open Message Not Received – Market Closed message sent without ever receiving Market Open from the Participant.	62
Invalid MPID – MPID supplied is either invalid or not recognized.	66
Invalid FINRA BBO MPID – MPID in the BBO section of the FINRA ADF quote is invalid.	68
Invalid FINRA BBO Price – Price in the BBO section of the FINRA ADF quote is invalid.	69
Invalid FINRA BBO Size – Size in the BBO section of the FINRA ADF quote is invalid.	70
Invalid FINRA BBO Cond – Quote Condition in the BBO section of the FINRA ADF quote is invalid.	71
Trade Doesn't Match – Message contents of trade cancellation/correction message do not match the original trade message or points to non-existent trade.	73
Participant Halted – Quoting Halted by Participant	75
Invalid Reversal Indicator	76
Invalid Reason	77
Market Wide Halt – a market wide regulatory halt is in effect for all securities. Quote update ability suspended.	79
Invalid Retail Interest Indicator	80
Invalid Reporting Time – Trade Report with sale condition "9" received prior to allowable reporting time.	82
Unsupported Message Version – message sent with an unknown version of the message.	83

Originating Participant Not Allowed – Originating Participant is a valid participant, but not allowed to send messages on this port.	84
Invalid BBO Indicator	86
Invalid Trade Through Exempt Flag	87
Invalid Action	88
Trading Action Not Allowed – Trading Action requested is not permitted in the present state of the issue. Quote Resume on a issue already resumed; Halt on an issue already halted.	89
Unexpected Trade Id	92
Unexpected Trading Action Sequence	93

5   Printable ASCII Table (character code 32-126)

Symbol	DEC	HEX		Symbol	DEC	HEX
<space>	32	20		P	80	50
!	33	21		Q	81	51
"	34	22		R	82	52
#	35	23		S	83	53
$	36	24		T	84	54
%	37	25		U	85	55
&	38	26		V	86	56
'	39	27		W	87	57
(	40	28		X	88	58
)	41	29		Y	89	59
*	42	2A		Z	90	5A
+	43	2B		[	91	5B
,	44	2C		\	92	5C
-	47	2D		]	93	5D
.	46	2E		^	94	5E
/	47	2F		_	95	5F
0	48	30		`	96	60
1	49	31		a	97	61
2	50	32		b	98	62
3	51	33		c	99	63
4	52	34		d	100	64
5	53	35		e	101	65
6	54	36		f	102	66
7	55	37		g	103	67
8	56	38		h	104	68
9	57	39		i	105	69
:	58	3A		j	106	6A
;	59	3B		k	107	6B
<	60	3C		l	108	6C
=	61	3D		m	109	6D
>	62	3E		n	110	6E
?	63	3F		o	111	6F
@	64	40		p	112	70
A	65	41		q	113	71
B	66	42		r	114	72
C	67	43		s	115	73
D	68	44		t	116	74
E	69	45		u	117	75
F	70	46		v	118	76
G	71	47		w	119	77
H	72	48		x	120	78
I	73	49		y	121	79
J	74	4A		z	122	7A

K	75	4B
L	76	4C
M	77	4D
N	78	4E
O	79	4F

{	123	7B
|	124	7C
}	125	7D
~	126	7E

6   Market Feature Descriptions

The SIP supports inbound quotation and administrative messaging to accommodate the following four rules:

- **Limit Up-Limit Down** – This rule sets forth a process for handling market volatility issues at the single security level for all U.S. equity exchanges.
- **Market Wide Circuit Breakers** – This rule establishes a benchmark and threshold triggers to be used to halt trading on all U.S. equity, options, and futures exchanges in the event of a severe market downturn.
- **Retail Liquidity Program**–This rule by the NYSE Euronext instituted a Retail Liquidity Program for its NYSE and NYSE MKT trading venues
- **Reg SHO**–This rule established a short sale-related circuit breaker that, if triggered, will impose a restriction on the prices at which securities may be sold short

6.1   SEC Limit Up / Limit Down Functionality

Note: Limit Up / Limit Down (LULD) initiative is disseminated via the vendor outbound data feeds and SIP does **NOT** return any data via the participants inbound connections. Participants are required to process the vendor data feeds to receive this information.

The Securities and Exchange Commission (SEC) has approved a pilot plan (http://www.sec.gov/rules/sro/nms/2012/34-67091.pdf), to address extraordinary market volatility in NMS Stocks by establishing a Limit Up–Limit Down (LULD) mechanism. The LULD procedures are designed to prevent trades in individual NMS Stocks from occurring outside of specified Upper and Lower Limit Price Bands.

6.1.1   Overview of LULD Functionality

• Trade prices are the basis for the calculation and publication of Price Bands for NMS Stocks.

• Bid prices above the Upper Limit Price Bands and Offer prices below the Lower Limit Price Bands are identified as Non-Executable and are not included in the National Best Bid and/or National Best Offer calculations.

• National Best Bids that are below the Lower Limit Price Bands and National Best Offers that are above the Upper Limit Price Bands for NMS Stocks will be identified as Non-Executable.

• National Best Bids that are equal to the Upper Limit Price Bands and National Best Offers that are equal to the Lower Limit Price Bands for NMS Stocks will be identified as in Limit State.

6.1.2   Limit Up – Limit Down Price Band Messages

In support of the LULD program, the SIP, calculates and disseminates to the public a Lower Price Band and an Upper Price Band for NASDAQ listed securities during Regular Trading Hours.

The SIP calculates a Pro-Forma Reference Price on a continuous basis during Regular Trading Hours. If a Pro-Forma Reference Price has not moved by 1% or more from the Reference Price currently in effect, no new Price Bands shall be disseminated, and the current Reference Price shall remain the effective Reference Price.

When the Pro-Forma Reference Price has moved by 1% or more from the Reference Price currently in effect, the Pro-Forma Reference Price shall become the Reference Price, and the Processor shall disseminate new Price Bands based on the new Reference Price; provided however, that each new Reference Price shall remain in effect for at least 30 seconds.

6.2   Market Wide Circuit Breakers

Note: The SIP will only accept inbound receipt of Market Wide Circuit Breaker message from the listing market via quote ports.

The SEC has approved a joint SRO proposal to revise the existing market-wide circuit breakers, which halt trading in all NMS securities (as defined in Rule 600(b)(47) of Regulation NMS under the Act) in the event of extraordinary market volatility, in order to make them more meaningful in today's high-speed electronic markets.

As described in the SEC rule approval order, the market wide circuit breakers changes: (i) replace the Dow Jones Industrial Average (DJIA) with the Standard & Poor's (S&P) 500 Index ("S&P 500") as the reference index; (ii) Recalculate the values of the threshold triggers daily rather than quarterly; (iii) reduce the 10%, 20%, and 30% market decline trigger percentages to 7%, 13%, and 20%; (iv) simply the length of the trading halts associated with each market decline level; and (v) streamline and extend the times when a market wide circuit breaker could be triggered.

The Level 1, Level 2, and Level 3 circuit breakers would operate as follows:

Level 1 Halt – Before 3:25 p.m. – 15 minutes; at or after 3:25 p.m. – trading shall continue, unless there is a Level 3 halt.

Level 2 Halt – Before 3:25 p.m. – 15 minutes; at or after 3:25 p.m. – trading shall continue, unless there is a Level 3 halt.

Level 3 Halt – At any time – trading shall halt and not resume for the rest of the day.

Market Wide Circuit Breaker (MWCB) Decline Levels message

A Market Wide Circuit Breaker (MWCB) Level message will be disseminated as Category A – Type C to inform market participants of the daily MWCB decline points for the current trading day.

The MWCB Levels will set each morning based on the prior day's closing value of the S&P 500 index. Under normal circumstances, the MWCB levels will be disseminated prior to the regular market hours. In the unlikely event of an index calculation error, however, the SIP reserves the right to update the MWCB levels intraday. Participants and data feed recipients are advised to retain only the most recently disseminated levels for that trading day.

For messaging details, please refer to the vendor data feed specification document.

Market Wide Circuit Breaker Status message

A Market Wide Circuit Breaker (MWCB) Status message will be disseminated to inform participants and the data recipients when a MWCB has breached one of the established levels.

For messaging details, refer to the vendor data feed specification document.

Following the Market Wide Circuit Breaker Status message, NASDAQ, as the primary market center, is expected to enter Trading Action – Cross SRO messages for all listed securities. To help differentiate MWCB actions from other halt actions, the SIP use specific Reason code values as well.

6.3   Retail Interest Indicator

The Securities and Exchange Commission (SEC) approved the NYSE Euronext plans to introduce a new Retail Liquidity Program for its NYSE and NYSE MKT trading venues. For details, refer to the NYSE Euronext rule filing located online at http://www.sec.gov/rules/sro/nyse/2011/34-65672.pdf.

In support of the rule, the Participant BBO Long and Short Form Quotation messages contain a Retail Interest Indicator field. The allowable values for the Retail Interest Indictor field are:

Description	Value
Retail Interest Not Applicable	<space>
Retail Interest On Bid Quote	A
Retail Interest On Ask Quote	B
Retail Interest On both Bid and Ask Quote	C

6.4   Reg SHO Short Sale Restricted Indicator

In May 2010, the SEC adopted amendments to Regulation SHO under the Securities Exchange Act of 1934. As outlined in Release Number 34-61595, the SEC has established a short sale-related circuit breaker that, if triggered, will impose a restriction on the prices at which securities may be sold short ("short sale price test" or "short sale price test restriction").

Under the amended rule, the SEC requires that participants establish, maintain, and enforce written policies and procedures reasonably designed to prevent the execution or display of a short sale order of a covered security at a price that is less than or equal to the current national best bid if the price of that covered security decreases by 10% or more from the covered security's closing price as determined by the listing market for the covered security as of the end of regular trading hours on the prior day.

Once the price test restriction has been triggered, Rule 201 (also known as the alternative uptick rule) would apply to short sale orders in that security for the remainder of the day as well as the following day.

Nasdaq will publish a Reg SHO Short Sale Price Test Restricted Indicator administrative message on the data feeds to indicate that an issue has breached the SEC Rule 201 short sale price test threshold. On the data feeds, the Reg SHO Short Sale Price Test Restricted Indicator message will be identified as Message Category A, Message Type V.

In addition to the real-time messages, NASDAQ OMX spins Reg SHO Short Sale Price Test Restricted Indicator messages to its pre-opening processes on the data feeds.

Please Note: The Reg SHO Short Sale Restricted Indicator is only supported via the Participant SIP quote inbound lines.

6.5   Market Center Open Price

Participants have the option (but are not required) to send the Securities Information Processor (SIP) a separate trade report message to provide the official market center open price after the commencement of the trading day. The SIP will accept a sale condition value of "Q" for this purpose. Messages sent to the SIP by a market center that include the market center open sale condition will only affect the underlying market center high and low values and not the market center last, consolidated closing high, low, or last sale values for the specific issue. The market center specific and consolidated last sale value will continue to be based on the last sale eligible trade report message received by the SIP from a Participant with a consolidated last sale eligible sale condition.

1) System requirements that should be applied when submitting opening price messages to the SIP that include a market center open sale condition are stated below.1) If a Participant chooses to use the market center open sale condition value "Q", the message including this value may have zero or positive volume. However, the report volume is intended for informational purposes only and will not count toward any market statistics. Furthermore, the market center would continue to report the underlying trade details as separate transaction messages.

2) Participants must use trade correction message to modify a trade report message submitted to the SIP. This processing must be applied for messages previously sent that include the "Q" sale condition. Within the trade correction message format, the "Q" sale condition must be submitted in both the original and correction formats of the message.

3) Participants may cancel a previously submitted trade report that included a .Q sale condition via the Cancel/Error message. In cases where the SIP receives a trade report including a .Q sale condition, and a .Q sale condition transaction already exists, the SIP will reject the transaction if the previous .Q sale condition trade has not been canceled in a separate transaction.

4) There should be only one transaction report submitted to the SIP with a .Q sale condition. The SIP will not accept multiple trade reports with .Q sale conditions.

6.6   Market Center Close Price

Participants have the option (but are not required) to send the Securities Information Processor (SIP) a separate trade report message to provide the official market center close price at the end of the normal trade reporting window. The SIP will accept a sale condition value of "M" for the market center-specific closing value. Messages sent to the SIP by a market center that include the market center close sale condition will only affect the underlying market center closing value and not the consolidated closing high, low, or last sale values for the specific issue. The consolidated last sale value will continue to be based on the last sale eligible trade report message received by the SIP from a Participant with a consolidated last sale eligible sale condition.

System requirements that should be applied when submitting closing price messages to the SIP that include a market center close sale condition are stated below.

1) If a Participant chooses to use the market center close sale condition value "M", the message including this value must be the final market center "last sale eligible" trade condition message sent via the Participant Trade Line to the SIP. Under the current Plan, covering Nasdaq-listed securities, Participants must submit last sale eligible trades within 10 seconds of the market close, and must identify trades reported after 4:01:30 p.m. ET with the appropriate sale condition prior to submission to the SIP.

2) Participants must use trade correction message to modify a trade report message submitted to the SIP. This processing must be applied for messages previously sent that include the "M" sale condition. Within the trade correction message format, the "M" sale condition must be submitted in both the original and correction formats of the message.

3) Participants may cancel a previously submitted trade report that included an .M sale condition via the Cancel/Error message. In cases where the SIP receives a trade report including a .M sale condition, and a .M sale condition transaction already exists, the SIP will reject the transaction if the previous .M sale condition trade has not been canceled in a separate transaction.

4) At the request of the market data industry, Participants should cease canceling or correcting last sale eligible trades at 5:15 p.m. ET.

6.7 Stopped Stock and Sold Last Sale Conditions

The SIP includes inbound transaction processing rules that effect consolidated and market-specific last sale eligibility for transactions reported with certain sale conditions.

- Transactions that include the "L" (sold last) sale conditions will only update the consolidated last sale if they have been received prior to the End of Last Sale Eligibility Control Message disseminated on UTDF at 16:00:10 ET. After this control message is received, transactions including these conditions will update the market-specific last sale value only.

6.8 Fractional Share Trade Reporting

The Unlisted Trading Privileges (UTP) Operating Committee, comprised of all exchange participants and FINRA, has announced its approval of the Fractional Share Trade Reporting Enhancements for the UTP Trade data services.

The objective of this project is to improve the transparency of off-exchange fractional share trading by enhancing the UTP SIP to support fractional share trade reporting. Fractional share trading is an activity in which a portion of a share of stock is exchanged between seller and buyer.

In order to facilitate this enhancement, the UTP SIP will introduce all new outbound trade messages as a "Hot Cut" release, tentatively scheduled for Q1 2025. Please refer to the UTP Plan website for more information and vendor specifications.

7   Revision History

Revision	Date	Change
1.0	10/27/2015	Initial Version
1.1	11/12/15	Corrected message table to reflect that Market Center Trading Action messages are allowed on inbound quote ports, but not trade ports. Removed End Of Participant Reporting (EOPR) messages (message types CG and cG). In the current SIP EOPR serves no function. The SIP will continue to validate against SOD and EOD conditions for incoming quotes and trades.
1.1a	01/19/2016	Revised document to remove the use of UTP in preparation for the new CTC Plan LLC that the committee will be creating.
1.1b	1/27/2016	Reworked outbound aJ message. The message is an acknowledgement for the input Market Center Trading Action and Mass Action messages.
1.1d	4/4/2016	Removed EOPR from message table. Added clarification to the description of FINRA Quote Message with BBO Info (QG), FINRA Quote Message without BBO Info (QF), and Market Center Trading Action Message (AJ)
1.1e	4/8/2016	TradeID will not be consumed for invalid trade id (error code 92). Participants should not increment tradeID when sending as/of trades. SIP will ignore the timestamp1 on CC or CS messages.
1.1f	6/8/2016	Clarified Market Open Message description. Clarified 611 trade through exempt code. Clarified unsequenced messages are sent for Sequence Inquiry Response (cC)
1.1g	6/21/2016	Timestamp1 will not be validated on as-of trades. Corrected error code from 31 to 33 for Invalid execution side for TI, TJ and TH. Removed error code 82 from TI message rejects
1.1h	6/30/2016	Clarified Trading Action (AO) and MC Trading Action (AJ) behavior.
1.2	3/8/2017	Added Auction Collar Message (AE) to section 2.5.10
1.2a	6/30/2017	Allow values of 3 through 60 for Seller Sales Day Removed reference to Sale conditions 2&3 which are no longer supported. Section 4.8 & 6.7
1.3	4/01/2018	Revised section 4.2 Originating Participant to reflect the change in representing FINRA TRF participants
1.4	12/3/2019	Modified allowable values for section 4.1 Originating Participant. Redefined the value of "LU" to represent the Long-Term Stock Exchange ("LTSE")
1.5	5/5/2020	Modified allowable values for section 4.1 Originating Participant. Added new allowable values • MIAX Pearl, LLC "MIAX" represented by value of "HU" • MEMX LLC "MEMX" represented by value of "UU"

Revision	Date	Change
1.6	6/21/2021	Updated Section 4.8 Trade Condition Table: Revised the existing Sale Condition (Cross Trade "X"), which is described as a trade transaction resulting from a market center's crossing session. Will be redefined to allow for the reporting of any exchanges Periodic Auctions.
1.7	4/14/2023	Updated Section 1.2.3 of the document to clarify that Alpha fields are alphanumeric and may contain numeric values 0-9
2.0	March 2024	Updated the document to add the new Fractional Share Trade Reporting Messages and processing. Modified document to remove the validation check on "side of execution" for cancel and correction messages. Modified document to remove the validation check on "security identifier is not available in SIP" within the Prior Day As/Of message formats.
2.0a	April 2024	Sale Condition 'N' (Next Day Trade) marked as Reserved as input Participants will transition to a shortened standard settlement cycle