NYSE Alerts

Customer Interface Specifications

Version 2.6

NOVEMBER 24, 2009

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1.0 Copyright/Trademark Statements

Copyright Statement

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Notice

Every effort was made to ensure that the information in this document was complete and accurate at the time of publication. However, information is subject to change without notice.

1.1 Document Information

The following outlines the evolution of this Customer Interface Specification:

Document History

Version	Date	Pages Affected	Comments
Rev 1.0	09/27/02	All	Initial version for internal review.
Rev 1.1	09/29/03	All	Merged this document with parent spec
Rev 1.2	04/29/04	All	Changes based on feedback received
Rev 1.3	05/12/04	All	Changes based on feedback received
Rev 1.4	06/17/04	All	Changes based on feedback received
Rev 1.5	06/25/04	All	Changes based on feedback received
Rev 1.6	08/18/04	All	Changes based on feedback received
Rev 1.7	07/22/05	All	Removed references to ITS Pre-openings, fixed wrong information related to message version ids, and removed correction option (from Adjustment fields).
Rev 1.8	08/26/05	All	Updating for Alerts 1.2: • Re-included references to ITS-pre-openings. • Added RCF info
Rev 2.0	08/23/06	All	Updated document to new format
Rev 2.1	06/27/07	9	New Source IPs added
Rev 2.2	09/07/07	20	Added sub penny trading halt condition 'Y'
Rev 2.3	11/27/07	21	Added NYSE Pre-Opening Indications to Msg '132'
Rev 2.4	08/10/09	All	Added New messages types '36' – Security Info '120' – Market Imbalance '121' – Opening Delays/Trading Halts '122' – Indications '123' – Trade Dissemination Time '124' – Circuit Breaker Removed the following Msg Types '130' – Market Imbalance Message '131' – Opening Delays/Trading Halts Message '132' – NYSE Indications Message '133' – Trade Dissemination Time Message '134' – Trading Collar Message '135' – Circuit Breaker Message
Rev 2.5	11/9/09	13,25	Corrected ExDivAmountPriceScaleCode in the SecurityInfoMessage to be 'Binary Integer' instead of 'ASCII Character' -Corrected IP address for Test Retrans Request
Rev 2.6	11/24/09	All	Update after documentation review

Contact
Information

NYSE Product/Account Questions
1-212-656-3800

NYSE Service Desk:
1-866-873-7422

Additional Product Information

For additional product information please visit
http://www.nyxdata.com

For updated capacity figures please visit our capacity pages at :
http://www.nyxdata.com/capacity

For additional support information on NYSE Alerts please visit our
discussion Board at:
http://www.nyxdata.com/nysedata/Support/DiscussionBoard/tabid/108/view/t
opics/forumid/11/Default.aspx

For additional information on SFTI please visit
http://www.nyse.com/technologies/sfti/1223635951074.html

Referenced Documents

Many of the general technical concepts referenced herein are detailed in the
following documents:

Data Distribution Model for IP Multicast Based Environment- Version 1.7;
SIAC Communication Engineering Planning and Development; 9 November
2000.

SFTI Customer Guide – Version 1.5; SIAC; 03/12/04

NYSE Symbology

1.2 Terms and Definitions

Overview The following section contains terms and definitions that are used throughout this document.

Terms	Definition
PDP Format	PDP format is a binary format that is used for NYSE Proprietary Data products such as NYSE Alerts.
Big Endian	Refers to which bytes are most significant in multi-byte data types. In big-endian architectures, the leftmost bytes are most significant. This byte order also corresponds to Network Byte Order.
Group ID	IP Multicast address for PDP data delivery.
Host Symbol Format	A format set internally by NYSE order processing systems. Its representation of suffix is different from NMS systems.
MART	Message Archive and Retransmission – The PDP component that archives and retransmits PDP message packets.
Monotonical	Incrementally increase in value by one.
PDP	NYSE Proprietary Data Product.
Port Number	Socket port assigned to a feed.
Publisher	Generic name for any system/application generating PDP message products.
PDP_Alerts	Proprietary Data Products Alerts– The data publication engine of the PDP that 'productizes' and publishes PDP Alerts message packets.
Recipient	Synonymous with *Subscriber*.
Sequence Number	A unique, sequential message ID that both 'tags' each message and allows recipients to identify message 'gaps' and request retransmission (if appropriate).
Subscriber	Any customer/client system that will subscribe to, and receive data products from, the PDP data engine (i.e. the PDP_ALERTS).
MTU	Maximum Transfer Unit – The largest size of IP datagram that may be transferred on a given network. Most network implementations have a default setting of 1500 bytes.
SFTI	Secure Financial Transaction Infrastructure
NYSE	New York Stock Exchange
SIAC	Securities Industry Automation Corporation
ASCII	American Standard Code for Information Interchange

Chapter 2 – NYSE Alerts Impact Guide

Overview

We suggest that the subscribers be able to handle the following message rates and sizes for NYSE Alerts traffic.

NYSE Alerts	Maximum (2010 projected)
Message Rate	47 MPS
Total Number of Messages in a Day	N/A
Bandwidth recommendations (Mbps)	0.52
Retrans/Refresh Bandwidth recommendations (Mbps)	0.05

Notes

- The maximum message rate may be sustained for a couple of minutes.

- The numbers are based on all feeds added.

- The message size corresponds to the DataFeed message size, without the TCP and IP headers.

- There maybe multiple messages per packet up to 28 messages per packet.

- For updated capacity figures please visit our capacity pages at :

http://www.nyxdata.com/capacity

Overview   The following chapter will provide you with all of the necessary connectivity information in order to subscribe to the NYSE Alerts data feed.

3.1 Source Subnet   The table below defines the Source subnet and the NetMask for all messages in the NYSE Alerts datafeed. Please add **all** source subnets to your firewall settings.

Production Subnet	NetMask
198.140.53.64	FF FF FF C0
198.140.54.64	FF FF FF C0
198.140.53.128	FF FF FF C0
198.140.54.128	FF FF FF C0

UAT Subnet	NetMask
198.140.57.208	FF FF FF F0
198.140.57.240	FF FF FF F0

3.2 Multicast groups

The NYSE Alerts data feed will be delivered to the following multicast group as described in the table below.

Feed Name	Description
Alerts_AZ	Multicast Groups assigned to deliver alerts messages of symbols starting with letters A - Z

3.3 Joining Multicast groups

To access NYSE Alerts, subscribers must join the multicast groups for primary feeds, as well as secondary feeds to assist in recovery. To request retransmissions of lost packets, subscribers must establish a TCP/IP connection (see "Retransmission of dropped packets" below). Please refer to Appendix B for diagrams that illustrate message processing and retrieval.

Data feeds for specific stocks are sent to different multicast addresses. This addressing scheme allows customers to subscribe to the specific data feeds and channels they need. Data feeds types are:

Multicast NYSE Alerts
Multicast Retransmission

3.4 Packet Retransmissions

In the event a packet is lost on the primary feed for a multicast group, clients can retrieve the lost packet from the secondary feed. UDP can at times be unreliable and may drop packets from both the primary and secondary data feeds. If a packet is lost from both the primary and secondary feeds, clients then make a TCP/IP request to have the packets resent. Packets are resent via the Retransmission Multicast Feed.

Subscribers have the option to connect to the TCP/IP Recovery Server to request dropped packets from the Alerts feed. This method is highly recommended in order to maintain a stable and accurate order book. The Recovery Server accepts connections on predefined addresses and ports and requires a heartbeat reply before responding to requests. It accepts primary and secondary connections to assist recovery on the subscriber's end.

After a client establishes a TCP/IP connection, NYSE Alerts will send a heartbeat request message to the client. Clients should respond to this request with a heartbeat response within a specific timeframe. This timeframe is currently set to Sixty (60) seconds but is subject to change—so clients should make this configurable. (Clients will be informed of changes to the timeframe via customer notice.) Regardless of the timeframe, the client should respond immediately with a heartbeat response message. After receiving the initial heartbeat response, the Recovery Server will send heartbeats to the client every 60 seconds to ensure that the TCP/IP connection is live.

Note that the Source ID that the client specifies in the heartbeat response message will be validated by NYSE Alerts. Each Source ID may only be logged in once per port at any given time.

To define a Source ID for retransmission purposes, contact the NYSE Service Desk Support and provide the desired Source ID. The Service Desk team will evaluate and approve or disapprove Source IDs. In case of disapproval, a new Source ID must be defined. In case of approval, NYSE Service Desk will make the necessary updates on the NYSE Alerts side to add the Source ID and applicable rules.

3.5 Production IP addresses

The table below defines the IP/Multicast group and port assignments for all messages in the NYSE Alerts feed.

NYSE Alerts	IP	Port
Primary data Feed – Symbols A to Z	224.0.5.228	8228
Secondary data Feed – Symbols A to Z	224.0.5.229	8229

3.6 Retransmission Request IP addresses

- The table below defines the TCP/IP retransmission request group and port assignments for all messages in the NYSE Alerts feed.

NYSE Alerts	IP	Port
Primary Retransmission Request for Symbols A to Z	198.140.58.77	9800
Secondary Retransmission Request for Symbols A to Z	198.140.59.77	9800

3.7 Retransmission IP addresses

The table below defines the IP/Multicast retransmission group and port assignments for all messages in the NYSE Alerts feed.

NYSE Alerts	IP	Port
Primary Retransmission Feed for Symbols A to Z	224.0.5.230	8230
Secondary Retransmission Feed for Symbols A to Z	224.0.5.231	8231

3.8 Retransmission Request Thresholds

The table below summarizes the Retransmission request thresholds for the NYSE Alerts feed. The numbers below represent the thresholds per channel.

Capability	Description	Threshold	Action
Prevention of invalid subscribers	Incoming requests from subscribers that are not in the enabled subscriber's source ID list will not be honored. PDP subscribers will need a source ID, which is a string that uniquely identifies the subscriber of the retransmission requests. Please contact the NYSE Service Desk to get a unique source ID.	N/A	Request will not be processed.
Limitation of Requests for a large number of packets	Only retransmission requests for 1000 packets or less will be honored.	1000	Request will not be processed.
Limitation of Generic Requests	If the number of a subscriber's generic requests reaches the threshold number of requests per day, the subscriber will be blocked and its retransmission request will no longer be honored during that particular day.	500	Subsequent retransmissions requests from that subscriber will be blocked.
Limitation of requests for refresh messages	Only refresh requests for 5000 messages or less will be honored.	5000	Request will not be honored.

3.9 NYSE Alerts Testing

The following section contains the IP/Multicast group assignments and Retransmission request assignments for the test/replay service. These replay tests are generally run at night (**Tues and Thurs from 7PM to 9PM**) and over different multicast groups than the production environment so that subscribers do not need to worry about incorrect data over the production lines.

The data replayed over this network is from a previous trading session (canned data)—all messages, or a range of messages, for a given service in their original sequence.

3. 10 Test IP Addresses

‣ The table below defines the test IP/Multicast retransmission group and port assignments for all messages in the NYSE Alerts feed.

NYSE Alerts	IP	Port
Test Primary data Feed – Symbols A to Z	224.0.5.161	8161
Test Secondary data Feed – Symbols A to Z	224.0.5.162	8162

3.11 Test Retransmission Request IP addresses

The table below defines the test TCP/IP retransmission request group and port assignments for all messages in the NYSE Alerts feed.

NYSE Alerts	IP	Port
Test Primary Retransmission Request for Symbols A to Z	198.140.58.77	9900
Test Secondary Retransmission Request for Symbols A to Z	198.140.59.77	9900

3.12 Test Retransmission IP addresses

The table below defines the test IP/Multicast retransmission group and port assignments for all messages in the NYSE Alerts feed.

NYSE Alerts	IP	Port
Test Primary Retransmission Feed for Symbols A to Z	224.0.5.163	8163
Test Secondary Retransmission Feed for Symbols A to Z	224.0.5.164	8164

3.13 NYSE Alerts UAT Testing

The following section contains the IP/Multicast group assignments and Retransmission request assignments for the User Acceptance testing environment. These replay tests are generally run intra-day **Mon thru Friday from 9AM to 5PM** and over different multicast groups than the production environment and test environment so that subscribers do not need to worry about incorrect data over the production lines.

The data replayed over this network is from a previous trading session—all messages, or a range of messages, for a given service in their original sequence.

3.14 UAT IP Addresses

The table below defines the Primary UAT IP/Multicast retransmission group and port assignments for all messages in the NYSE Alerts feed

NYSE Alerts	IP	Port
Primary UAT data Feed – Symbol range A to Z	233.75.215.16	65014
Secondary UAT data Feed – Symbol range A to Z	233.75.215.144	65114

3.15 UAT Test Retransmission Request IP addresses

The table below defines the UAT TCP/IP retransmission request group and port assignments for all messages in the NYSE Alerts feed

NYSE Alerts	IP	Port
UAT Retrans Request – Symbol range A to Z	198.140.57.11	65237

3.16 UAT Retransmission Request IP addresses

The table below defines the UAT IP/Multicast retransmission group and port assignments for all messages in the NYSE Alerts feed.

NYSE Alerts	IP	Port
Primary UAT Retransmission feed – Symbol range A to Z	233.75.215.16	65064
Secondary UAT Retransmission feed – Symbol range A to Z	233.75.215.144	65164

4.1 Publication Period

The following section specifies the frequency and publication period for each message type disseminated by the NYSE Alerts Product.

Message	Message Type	Publication Period
Security Info	36	NYSE Alerts is generated based on events. Every message will be transmitted based on that event. These messages may be sent between 2:00am and 4:30pm (EST)
Market Imbalance	120	NYSE Alerts is generated based on events. Every message will be transmitted based on that event. These messages may be sent between 8:00am and 4:30pm (EST)
Delay Halt	121	NYSE Alerts is generated based on events. Every message will be transmitted based on that event. These messages may be sent between 8:00am and 4:30pm (EST)
Indication	122	NYSE Alerts is generated based on events. Every message will be transmitted based on that event. These messages may be sent between 8:00am and 4:30pm (EST)
T-Time	123	NYSE Alerts is generated based on events. Every message will be transmitted based on that event. These messages may be sent between 8:00am and 4:30pm (EST)
Circuit Breaker	124	NYSE Alerts is generated based on events. Every message will be transmitted based on that event. These messages may be sent between 8:00am and 4:30pm (EST)

4.2 Gap Detection

The PDP Distribution System will assign all data packets a unique, sequential message ID. This will allow recipients to identify 'gaps' in the message sequence and, if appropriate, reconcile them 'locally' with an alternate feed or request retransmission of the missing/corrupted data packet.

4.3 Dual Site

NYSE Alerts data is redundant service with identical data transmitted through Primary and Secondary Multicast groups. This will allow customers to receive two redundant feeds. Additionally, any message can be retransmitted upon request.

Chapter 5 – NYSE Alerts Message Specifications

Overview

This service will provide Security Trading Status data for all NYSE Listed Securities. Through the NYSE Alerts product, member firms and their customers will be able to receive market information in a data stream.

The NYSE Alerts messages distributed include:

- Market Imbalances
- Opening Delays/Trading Halts
- Indications (NYSE Market Data only)
- Trade Dissemination Time
- Trading Collar
- Circuit Breaker

5.1 Data Delivery format

The NYSE Alerts service uses the push-based publishing model. This means that data will be published based on its availability. Once an Alert is available, it will be published to NYSE Alert Subscribers.

5.2 General Processing Notes

The following processing notes apply to the messages sent through the feed.

- All fields will be sent for every packet.
- Only field values will appear in the published messages (e.g., no names, 'tags', sizes will appear in the message). The field names that appear in the descriptions below are for reference purposes only.
- All the fields are contiguous, with reserved fields for alignment issues.
- All field sizes are fixed and constant.
- The source time referenced will be using Eastern Standard Time (EST).
- Binary fields are provided in *Big Endian* format.
- ASCII string fields are left aligned and null padded

5.3 Sequence Numbers

All messages conform to the line level sequencing. Each channel A,B,C, D, etc has its own sequence number. Subscribers can use sequence numbers to determine the following:

- Missing (gapped) messages
- Unordered messages
- Duplicate messages

Clients should note that the message sequence number per channel might restart from one following a failure recovery. A reset sequence number message will be sent to clients via the Multicast Groups to inform of such event.

5.4 Symbols

The stock symbols represented in this feed include the root and optional suffix utilizing NYSE Symbology.

For example, if a symbol's root is "ABC" and its suffix is "PRA", the symbol's root/suffix will be represented as: "ABC PRA\0\0\0\0". Between the root and the suffix there will be one space. After the suffix, null values follow to fill the 11 characters allocated for the stock symbol field.

Note: "\0" represents a null value

5.5 Prices

Prices in this feed are represented by two fields, separating the denominator and the numerator. All prices in the feed share a common denominator, which is represented in the PriceScaleCode.

The PriceScaleCode field value represents the common denominator for the following formula:

$$\Pr ice = \frac{Numerator}{10^{\Pr iceScaleCode}}$$

For example, a price of 27.56 is represented by a Numerator of 2756 and a PriceScaleCode equals to 2.

5.6 NYSE Alerts Data Messages

The following table contains a list of the message types in the NYSE Alerts feed.

Message	Message Type	Description
Security Info	36	This message contains the start of day stock reference information.
Market Imbalance	120	This message contains the Market Imbalances
Delay Halt	121	This message contains the Opening Delays/Trading Halts
Indication	122	This message contains the NYSE Trading Indications
T-Time	123	This message contains the Trade dissemination time
Circuit Breaker	124	This message contains the Trading Collars

5.8 Message Header Format

All messages are preceded by a standard header format. The table on the next page describes the header fields of an NYSE Alerts message.

Field	Offset	Size (Bytes)	Format	Description
MsgSize	0	2	Binary Integer	This field indicates the size of the message body in bytes, excluding these two bytes: Sequence Number Reset – '18 Bytes' Heartbeat Message – '14 Bytes' Heartbeat Response Message – '34 Bytes' Message Unavailable – '22 Bytes' Retransmission Request Message – '42 Bytes' Retransmission Response Message – '42 Bytes' **Security Info – '53 bytes'** **Market Imbalance – '21 bytes'** **Delay Halt – '17 bytes'** **Indication – '26 bytes'** **T-Time – '20 bytes'** **Circuit Breaker – '133 bytes'**
MsgType	2	2	Binary Integer	This field identifies the type of message '1' – Sequence Number Reset '2' – Heartbeat Message '5' – Message Unavailable '10' – Retransmission Response message '19' – Heartbeat Subscription message '20' – Retransmission Request Message '24' – Heartbeat Response Message **'36' – Security Info** **'120' – Market Imbalance** **'121' – Delay Halt** **'122' – Indication** **'123' – T-Time** **'124' – Circuit Breaker**
MsgSeqNum	4	4	Binary Integer	This field contains the message sequence number assigned by PDP for each product. It is used for gap detection. Also known as Line Sequence Number (LSN).
SendTime	8	4	Binary Integer	This field specifies the time message was created by PDP. The number represents the number of milliseconds since midnight of the same day.
ProductID	12	1	Binary Integer	**'104'** is the product value used in the PDP header to identify the NYSE Alerts feed
RetransFlag	13	1	Binary Integer	A flag that indicates whether this is an original, retransmitted, or 'replayed' message. Valid values include: '1' – Original message '2' – Retransmitted message '3' – Message Replay '4' – Retransmission of a 'replayed' message

				'5' – Refresh Retransmission
				'6' - End of Refresh Retransmission
				'129' – Test Original Message
				'130' – Retransmission of a test message
				'131' – Replay of a test message
				'132' – Retransmission Replay of a Test Message
NumBodyEntries	14	1	Binary Integer	The number of times the message body repeats in the message. For example, if the body consists of only a single field (named Volume) and the "NumBodyEntries" field is 2, this signifies there were two events for the price point and as a result the number of bytes in the message body will be 8
Filler	15	1	Binary Integer	This field is reserved for future use

5.9 Security Info Message Format

The table below describes the body fields of an Alerts Security Info message (**MsgType = '36'**)

Field Name	Offset	Size (bytes)	Format	Description

SourceTime	0	4	Binary Integer	Indicates the time of the SecurityInfo message.
				The time is in milliseconds since midnight
				Example:
				  If the time is 13:12 56 secs and 170 ms
				  This field will contain the value 47576170

Symbol	4	11	ASCII String	This field contains the full symbol in NYSE Symbology. A sequence of characters representing the symbol, padded with NULLs
SecurityType	15	1	ASCII Character	This field indicates the Security Type. The valid values are: '**A**' - Common Stock '**B**' - Preferred Stock '**C**' - Warrant '**D**' - Right '**E**' - Corporate Bond '**F**' - Treasury Bond '**G**' - Structured Product '**H**' - ADR Common '**I**' - ADR Preferred '**J**' - ADR Warrants '**K**' - ADR Rights '**L**' - ADR Corporate Bond '**M**' - NY Registered Share '**N**' - Global Registered Share '**O**' - Index '**P**' - Fund '**Q**' - Basket '**R**' - Unit '**S**'- Liquidating Trust '**U**' - Unknown Default Value: N
Filler	16	2	Binary Integer	This field is reserved for future use
MPV	18	2	Binary Integer	This field contains Minimum Price Variation. The minimum price amount a stock can move up/down
Post	20	1	Binary Integer	This field contains the post number where the security is trading.
Panel	21	2	ASCII String	This field contains the Panel location where the security is trading '**~**' - N/A
TickerDesignation	23	1	ASCII Character	This field contains the ticker where issue is reported '**A**' -NYSE '**B**' - AMEX '**Q**' - NASDAQ ' ' (Space) - Default value
IPOFlag	24	1	ASCII Character	This field indicates whether this is an IPO. The Valid Values are: '**Y**' - Yes '**N**' - No ' ' (Space) = Not available
CountryCode	25	3	ASCII String	This field contains the ISO country code. Default value - " " (Space)
UOT	28	2	Binary Integer	This field contains the Unit of trade for a security. Unit share quantity stock trades in Range: 100,50,10,1

PriceScaleCode	30	1	Binary Integer	This field contains the PriceScaleCode for the reference price in this message. This represents the number of digits after the decimal place in the price. Example: - For a price of 12.1, the PriceScale code is 1. - For price 13, the code is 0
LRPPriceScaleCode	31	1	Binary Integer	This field contains the PriceScalecode for the LRP price in this message. Represents the number of digits after the decimal place in the LRP price. Example: - For a LRP price of 12.1, the PriceScale code is 1. - For LRP price 13, the code is 0
LRP	32	2	Binary Integer	This field contains the LRP Value to calculate the High and Low LRPs. Range: 0000000.00-9999999.99 ($)
BankruptcyFlag	34	1	ASCII Character	This field contains the bankruptcy status of the security The valid values are: '**Y**' - Bankrupt '**N**'- Not Bankrupt
FinancialStatus	35	1	Binary Integer	This field contains an indicator to identify financial status. Valid values: '**0**' - normal '**1**' - below continue listing standards (bc) '**2**' - late filing (lf) '**3**' - bc and lf (below continue listing standards and late filing)
ExDistributionFlag	36	1	ASCII Character	This field contains a flag to Denote if stock is in Ex-Distribution '**N**' - security is not ExDistribution '**Y**'- security is ExDistribution
ExRightsFlag	37	1	ASCII Character	This field indicates that the ex-Rights temporary suffix should be displayed Valid Values: '**Y**' - Yes '**N**' - No
ExDividendFlag	38	1	ASCII Character	This field contains a flag to Denote if stock is in ex-dividend cycle Valid values: '**N**' - Security is not ExDividend '**Y**' - Security is ExDividend (ExDivDate would be set to "XD ")
ExDivAmountPriceScaleCode	39	1	Binary Integer	The field contains the PriceScalecode for the ExDivAmount price in this message. Represents the number of digits after the decimal place in the ExDivAmount price. Example: - For a ExDivAmount price of 12.1, the denom code is 1. - For ExDivAmount price 13, the code is 0 Note: If the SpecialDivFlag is set to true, this field is always set to 0
ExDivAmount	40	4	Binary Integer	This field contains the Ex-Div Amount Note: If the SpecialDivFlag is set to true, this field is always set to 0
ExDivDate	44	5	ASCII String	This field is contains the ex-dividend date The length of this field is five bytes. The format of this field is as follows: first two bytes are used for the month followed by one byte for the forward slash and two bytes for the day, zero filled to the left when required example: "06/11" or "XD" followed by NULLs to indicate Ex-Dividend today. or NULLs for N/A
SpecialDivFlag	49	1	ASCII Character	This field is a Flag that denotes whether the Dividend is a special/complex value. Note: If the SpecialDivFlag is set to true, the DivAmt is always set to 0 Valid Values: '**Y**' - Special Dividend amount '**N**' - Not a special Dividend amount, refer to the ExDivAmount for the dividend amount

Field Name	Offset	Size	Format	Description
StockSplit	50	1	ASCII Character	This field indicates if there is a stock split Valid Values: '**N**' - Security has not Split '**Y**'- Security has Split
Rule19C3	51	1	ASCII Character	This field indicates if Trading allowed away from NYSE floor Valid Values: '**N**' - No '**Y**' - Yes
ITSEligible	52	1	ASCII Character	This field indicates if the stock is ITS Eligible '**Y**' - Yes '**N**' - No (Default)

5.10 Market Imbalance

The table below describes the body fields of a Market Imbalance message (**MsgType = '120'**)

Field Name	Offset	Size	Format	Description
SourceTime	0	4	Binary Integer	This field specifies the time when the event was generated in the system. The number represents the number of milliseconds since midnight of the same day. Example: If the time is 13:12 56 seconds, 170 milliseconds and 30 microseconds This field will contain the value 47576170
Symbol	4	11	ASCII String	This field contains the full symbol in NYSE Symbology. A sequence of characters representing the symbol, padded with NULLs
SecurityStatus	15	1	Integer (ASCII)	This is field contains the temporary status of the security. The valid values are: '**1**' - Regulatory Imbalance '**2**' - Cancel Regulatory Imbalance
ImbalanceQuantity	16	4	Binary Integer	This field contains the total imbalance quantity at the reference price point
ImbalanceSide	20	1	ASCII Character	This field indicates the side of the order Buy/sell. Valid Values: '**B**' - Buy '**S**' - Sell ' ' - No imbalance or N/A

5.11 Delay Halts The table below describes the body fields of Delay Halts messages (**MsgType = '121'**)

Field Name	Offset	Size	Format	Description
SourceTime	0	4	Binary Integer	This field specifies the time when the event was generated in the system. The number represents the number of milliseconds since midnight of the same day. Example: If the time is 13:12 56 seconds, 170 milliseconds and 30 microseconds This field will contain the value 47576170
Symbol	4	11	ASCII String	This field contains the full symbol in NYSE Symbology. A sequence of characters representing the symbol, padded with NULLs
SecurityStatus	15	1	Binary Integer	This field contains the status of the security. The valid values are: '3' - Opening Delay '4' - Trading Halt '5' – Resume '6' - No open/no resume
HaltCondition	16	1	ASCII Character	This field represents the halt condition for the security. The valid value are: '~' - Security not delayed/halted 'A' - As of Update 'D' - News dissemination 'I' - Order imbalance 'P' - News pending 'J' - Due to related security - news dissemination 'K' - Due to related security - news pending 'Q' - Due to related security 'S' - Related security (not used) 'V' - In view of common 'X' - Equipment changeover 'Y' - Sub penny Trading 'Z' - No open/No resume No longer expected (but possible): 'E' - Order influx 'M' - Additional information 'T' - Resume (handled as '~' above)

5.12 Indication   The table below describes the body fields of an Indication message (**MsgType = '122'**)

Field Name	Offset	Size	Format	Description
SourceTime	0	4	Binary Integer	This field specifies the time when the event was generated in the system. The number represents the number of milliseconds since midnight of the same day. Example: If the time is 13:12 56 seconds, 170 milliseconds and 30 microseconds This field will contain the value 47576170
Symbol	4	11	ASCII String	This field contains the full symbol in NYSE Symbology. A sequence of characters representing the symbol, padded with NULLs
SecurityStatus	15	1	Binary Integer	This field contains the status of the security. The valid values are: '7' - Price Indication '8' - Trading Range Indication ' 9' - NYSE Mandatory Pre-Opening Indication
BidPrice	16	4	Binary Integer	This field contains an approximation of what the low end "Bid" price of a security's trading range may be. Note: The price is represented by the PriceScaleCode and the PriceNumerator. For example, a price of 12.1 has a "price numerator" of 121 and a pricescalecode of 1
AskPrice	20	4	Binary Integer	This field represents an approximation of what the high end "Ask" price of a security's trading range may be. Note: The price is represented by the PriceScaleCode and the PriceNumerator. For example, a price of 12.1 has a "price numerator" of 121 and a pricescalecode of 1
PriceScaleCode	24	1	Binary Integer	The pricescalecode code for the price fields in this message. Represents the number of digits after the decimal place in the price. Example: - For a price of 12.1, the pricescalecode is 1. - For price 13, the code is 0
Adjustment	25	1	Binary Integer	This field denotes whether the referenced transaction should be cancelled. The valid values are: '0' - None '1' - Cancel '2' - Correction

5.13 T-Time   The table below describes the body fields of a Trade Dissemination Time message (**MsgType = '123'**)

Field Name	Offset	Size	Format	Description
SourceTime	0	4	Binary Integer	This field specifies the time when the event was generated in the system. The number represents the number of milliseconds since midnight of the same day. Example: If the time is 13:12 56 seconds, 170 milliseconds and 30 microseconds This field will contain the value 47576170
Symbol	4	11	ASCII String	This field contains the full symbol in NYSE Symbology. A sequence of characters representing the symbol, padded with NULLs
SecurityStatus	15	1	Binary Integer	This field contains the status of the security. The valid values are: '**10**' - Trade Dissemination Time
TradeDisseminationTime	16	4	Binary Integer	This field specifies the time the Trade Dissemination time. The number represents the number of milliseconds since midnight of the same day. Example: If the time is 13:12 56 seconds, 170 milliseconds and 30 microseconds This field will contain the value 47576170

5.14 Circuit Breaker

The table below describes the body fields of a Circuit Breaker message (**MsgType = '124'**)

Field Name	Offset	Size (bytes)	Format	Description
EventTime	0	4	Binary Integer	This field specifies the time when the event was generated in the system. The number represents the number of milliseconds since midnight of the same day. Example: If the time is 13:12 56 seconds, 170 milliseconds and 30 microseconds This field will contain the value 47576170

Status	4	1	ASCII Character	**Valid values:**
				 '**0**' - Circuit Breakers are not currently in effect.
				  Please disregard the previous message.
				
				 '**1**' - Circuit Breakers are now in effect and Trading has been halted.
				  Trading will resume in a 1/2 hour.
				
				 '**2**' - Circuit Breakers are now in effect and Trading has been halted.
				  Trading will resume in a 1 hour.
				
				 '**3**' - Circuit Breakers are now in effect and Trading has been halted.
				  Trading will resume in 2 hours.
				
				 '**4**' - Circuit Breakers are now in effect and Trading has been halted.
				  Trading will not resume today.
				  MOC and LOC orders will be cancelled, and NYSE Crossing Sessions will not take place.

URL	5	128	ASCII String	The URL to the description of the message.

Appendix A– Common PDP Message Structure

Overview

In broad terms, there are two types of messages transmitted as part of this protocol: control and data. Control messages do not contain data per se; rather, they allow conversing parties to exchange session-specific information (e.g., 'reset sequence number'). Data messages are product specific and, although they will adhere to the general specification, they are defined specifically in a later section.

A.1 General Processing Notes

The following processing notes apply to the messages described above.

- All fields will be sent for every packet.

- Only field values will appear in the published messages (e.g., no names, 'tags', sizes will appear in the message). The field names that appear in in the descriptions below are for reference purposes only.

- All the fields are contiguous, i.e., there is no explicit (or implicit) 'padding' between fields regardless of the juxtaposed data types, sizes, and alignment issues.

- All field sizes are fixed and constant.

- The source time referenced will be using Eastern Standard Time (EST).

- Binary fields are provided in *Big Endian* format.

- All binary fields will be unsigned (unless otherwise specified)

- ASCII string fields are left align, null padded.

A.2 Common Message Header Format

All PDP messages will contain a Common Message Header. This model is akin to that of an envelope/letter paradigm. The message header comprises envelope information; the message body comprises the letter. All correspondence will use the same envelope format regardless of content.

The intent of this design is to minimize development burden on behalf of Subscribers. That is, all Subscribers may implement line-level protocol processing once, and then need only develop parsing algorithms for messages of choice.

Field	Offset	Size (Bytes)	Format	Description
MsgSize	0	2	Binary Integer	This field indicates the size of the message body in bytes, excluding these two bytes: Sequence Number Reset – '18 Bytes' Heartbeat Message – '14 Bytes' Heartbeat Response Message – '34 Bytes' Message Unavailable – '22 Bytes' Retransmission Request Message – '42 Bytes' Retransmission Response Message – '42 Bytes' **Security Info – '53 bytes'** **Market Imbalance – '21 bytes'** **Delay Halt – '17 bytes'** **Indication – '26 bytes'** **T-Time – '20 bytes'** **Circuit Breaker – '133 bytes'**
MsgType	2	2	Binary Integer	This field identifies the type of message '1' – Sequence Number Reset '2' – Heartbeat Message '5' – Message Unavailable '10' – Retransmission Response message '19' – Retransmission Subscription message '20' – Retransmission Request Message '24' – Heartbeat Response Message **'36' – Security Info** **'120' – Market Imbalance** **'121' – Delay Halt** **'122' – Indication** **'123' – T-Time** **'124' – Circuit Breaker**
MsgSeqNum	4	4	Binary Integer	This field contains the message sequence number assigned by PDP for each product. It is used for gap detection. Also known as Line Sequence Number (LSN).
SendTime	8	4	Binary Integer	This field specifies the time message was created by PDP. The number represents the number of milliseconds since midnight of the same day.
ProductID	12	1	Binary Integer	**'104'** is the product value used in the PDP header to identify the NYSE Alerts feed
RetransFlag	13	1	Binary Integer	A flag that indicates whether this is an original, retransmitted, or 'replayed' message. Valid values include: '1' – Original message '2' – Retransmitted message '3' – Message Replay '4' – Retransmission of a 'replayed' message '5' – Refresh Retransmission '6' - End of Refresh Retransmission '129' – Test Original Message '130' – Retransmission of a test message

Field Name					
NumBodyEntries	14	1	Binary Integer	The number of times the message body repeats in the message. For example, if the body consists of a field (named Volume) and the "NumBodyEntries" field is 2, the number of bytes in the message body will be 8
Filler	15	1	Binary Integer	This field is reserved for future use.

('131' – Replay of a test message / '132' – Retransmission Replay of a Test Message appear above the NumBodyEntries row)

A.3 Sequence Number Reset

This message is sent to 'reset' the Sequence Number at start of day, in response to failures, etc. Note that this message will contain a valid sequence number. The message format is shown below.

Field Name	Offset	Size	Format	Value	Description
Set forth below are the 'header' fields of the Sequence Number Reset Message					
MsgSize	0	2	Binary Integer	18	Refer to section A.2
MsgType	2	2	Binary Integer	'1'	Refer to section A.2
MsgSeqNum	4	4	Binary Integer		Refer to section A.2
SendTime	8	4	Binary Integer		Refer to section A.2
ProductID	12	1	Binary Integer	'104'	Refer to section A.2
RetransFlag	13	1	Binary Integer	'1'	Refer to section A.2
NumBodyEntries	14	1	Binary Integer	'1'	Refer to section A.2
Filler	15	1	Binary Integer		Refer to section A.2
Defined below are the 'body' fields of the Sequence Number Reset Message					
NextSeqNumber	16	4	Binary Integer		This field contains the sequence number value that the recipient should expect in the immediately succeeding data packet. Note that this message will contain its own valid sequence number in the header portion of the message.

A.4 Sequence Number Processing Notes

Sequence numbers normally begin at one (1) and increase monotonically with each subsequent message. There are two scenarios where the sequence number is reset (besides the start of day). First, if the value should exceed the maximum value that the SeqNum field may contain, it will be reset to one (1). Second, if PDP_ALERTS has a failure and it recovers, it sends a sequence number reset message. The SeqNum field of that message will be set to one (1) and the NextSeqNumber field will be set to two (2). Third, a Full update message will be sent for all symbols on the channel(s) where the reset sequence number message was sent. Please refer to B.2 Processing Sequence Number Reset Messages for a suggest way of processing.

A.5 Heartbeat Subscription Message

Subscribers can optionally subscribe with the retrans/refresh server to receive heartbeats, by issuing this message with a valid sourceID. Once subscribed, the retrans/refresh server will forward PDP Heartbeats.

Note: Clients that do not explicitly subscribe for heartbeats would start receiving heartbeats only after they have issued at least 1 refresh/retrans request to the retrans/refresh server.

Field Name	Offset	Size	Format	Value	Description
Set forth below are the 'header' fields of the Heartbeat Response Message					
MsgSize	0	2	Binary Integer	'34'	Refer to section A.2
MsgType	2	2	Binary Integer	'19'	Refer to section A.2
MsgSeqNum	4	4	Binary Integer		Refer to section A.2
SendTime	8	4	Binary Integer		Refer to section A.2
ProductID	12	1	Binary Integer	'104'	Refer to section A.2
RetransFlag	13	1	Binary Integer	'1'	Refer to section A.2
NumBodyEntries	14	1	Binary Integer	'1'	Refer to section A.2
Filler	15	1	Binary Integer		Refer to section A.2
Defined below are the 'body' fields of the Heartbeat Response Message					
SourceID	16	20	ASCII String		This field represents the name of the source requesting retransmission. This field is null padded, left aligned

A.6 Heartbeat Messages

Subscribers that choose to establish and remain connected to the TCP/IP retrans/Refresh server will receive heartbeat message to let them know that the connection is still alive.

Field Name	Offset	Size	Format	Value	Description
Set forth below are the 'header' fields of the Heartbeat Message					
MsgSize	0	2	Binary Integer	14	Refer to section A.2
MsgType	2	2	Binary Integer	'2'	Refer to section A.2
MsgSeqNum	4	4	Binary Integer		Refer to section A.2
SendTime	8	4	Binary Integer		Refer to section A.2
ProductID	12	1	Binary Integer	'104'	Refer to section A.2
RetransFlag	13	1	Binary Integer	'1'	Refer to section A.2
NumBodyEntries	14	1	Binary Integer	'0'	Refer to section A.2
Filler	15	1	Binary Integer		Refer to section A.2

A.6 Heartbeat Message Processing Notes

- Heartbeat messages will be sent with the same sequence number as the most recent message that was sent.
- Heartbeat messages will only contain the PDP Message Header with an empty body.
- Subscribers should respond to these heartbeat requests with a heartbeat message.

Please refer to B.3 Processing Heartbeat Messages for a suggest way of processing.

A.7 Heartbeat Response Message

This message will be sent by subscribers that choose to establish and remain connected to the TCP/IP retransmission/refresh server intraday. This message lets the NYSE know that the connection is still alive. Subscribers should respond to these heartbeat requests with a heartbeat response message

Field Name	Offset	Size	Format	Value	Description
Set forth below are the 'header' fields of the Heartbeat Response Message					
MsgSize	0	2	Binary Integer	'34'	Refer to section A.2
MsgType	2	2	Binary Integer	'24'	Refer to section A.2
MsgSeqNum	4	4	Binary Integer		Refer to section A.2
SendTime	8	4	Binary Integer		Refer to section A.2
ProductID	12	1	Binary Integer	'104'	Refer to section A.2
RetransFlag	13	1	Binary Integer	'1'	Refer to section A.2
NumBodyEntries	14	1	Binary Integer	'1'	Refer to section A.2
Filler	15	1	Binary Integer		Refer to section A.2
Defined below are the 'body' fields of the Heartbeat Response Message					
SourceID	16	20	ASCII String		This field represents the name of the source requesting retransmission. This field is null padded, left aligned

A.8 Retransmission Request Message

This message is sent by Subscribers requesting missing messages. The MART will retransmit the appropriate message(s).

Field Name	Offset	Size	Format	Value	Description
Set forth below are the 'header' fields of the Generic Retransmission Request Message					
MsgSize	0	2	Binary Integer	'42'	Refer to section A.2
MsgType	2	2	Binary Integer	'20'	Refer to section A.2
MsgSeqNum	4	4	Binary Integer		Refer to section A.2
SendTime	8	4	Binary Integer		Refer to section A.2
ProductID	12	1	Binary Integer	'104'	Refer to section A.2
RetransFlag	13	1	Binary Integer	'1'	Refer to section A.2
NumBodyEntries	14	1	Binary Integer	'1'	Refer to section A.2
Filler	15	1	Binary Integer		Refer to section A.2
Defined below are the 'body' fields of the Generic Retransmission Request Message					
BeginSeqNum	16	4	Binary Integer		The beginning sequence number of the requested range of messages to be retransmitted.
EndSeqNum	20	4	Binary Integer		The end sequence number of the requested range of messages to be retransmitted.
SourceID	24	20	ASCII String		This field represents the name of the source requesting retransmission. This field is null padded, left aligned

A.9 Retransmission Response Message

This message will be sent immediately via TCP/IP in response to the subscribers request for retransmission messages, i.e., Retransmission. This message does not contain any information but an ACK or NAK of the request message.

Field Name	Offset	Size	Format	Value	Description
Set forth below are the 'header' fields of the NYSE Retransmission Response Message					
MsgSize	0	2	Binary Integer	'42'	Refer to section A.2
MsgType	2	2	Binary Integer	'10'	Refer to section A.2
MsgSeqNum	4	4	Binary Integer		Refer to section A.2
SendTime	8	4	Binary Integer		Refer to section A.2
ProductID	12	1	Binary Integer	'104'	Refer to section A.2
RetransFlag	13	1	Binary Integer	'1'	Refer to section A.2
NumBodyEntries	14	1	Binary Integer	'1'	Refer to section A.2
Filler	15	1	Binary Integer		Refer to section A.2
Defined below are the 'body' fields of the NYSE Retransmission Response Message					
SourceSeqNum	16	4	Binary Integer		This field contains the request message sequence number assigned by the client. It is used by the client to couple the request with the response message.
SourceID	20	20	ASCII String		This field represents the name of the source requesting retransmission. This field is null padded, left aligned
Status	40	1	Character		This is a flag that indicates whether the retransmissions request was accepted or rejected. Valid values: 'A' – Accepted 'R' - Rejected
Reject Reason	41	1	Character		This is a flag that indicates the reason why the request was rejected. Valid values: '0' – Message was accepted '1' – Rejected due to permissions '2' – Rejected due to invalid sequence range '3' – Rejected due to maximum sequence range (>1000) '4' – Rejected due to maximum request in a day '5' – Rejected due to maximum number of refresh requests in a day
Filler	42	2	ASCII String		This is filler, reserved for future use.

A.10 Retransmission Message

Upon receipt of a valid retransmission request message, the requested message(s) will be sent. This message(s) has the same message format and content as the original messages sent by the PDP_Alerts, with the exception that the 'RetransFlag' in the header is set to the value of '2' or '5' depending on whether the retransmission is for a non-replay or a replay retransmission message, respectively.

Field Name	Offset	Size	Format	Value	Description
Set forth below are the 'header' fields of the Retransmitted Message					
MsgSize	0	2	Binary Integer		Refer to section A.2
MsgType	2	2	Binary Integer		It will be the MsgType of the original message sent by the PDP_ALERTS.
MsgSeqNum	4	4	Binary Integer		Refer to section A.2
SendTime	8	4	Binary Integer		Refer to section A.2
ProductID	12	1	Binary Integer	'194'	Refer to section A.2
RetransFlag	13	1	Binary Integer	'2' or '5'	Refer to section A.2
NumBodyEntries	14	1	Binary Integer	Same as original message	Refer to section A.2
Filler	15	1	Binary Integer		Refer to section A.2
All the 'body' fields of the Retransmitted Message are the same as the original message					

A.11 Retransmission message processing notes

- All Subscribers will receive retransmission messages through the retransmission channel.

- Due to the multicast nature, subscribers will receive 'all' retransmission messages, including messages that were not requested by them.

- Note that when a message for a particular symbol is retransmitted, a new message **for the same symbol** may be sent through the regular channel. This scenario is very likely to occur with busy symbols and may cause confusion as to which message contains the latest information on that symbol.

In order to resolve the conflict, the following qualification method should be applied:

   a. Check the MsgSeqNum field. A retransmitted message retains the same sequence number as the original message. Even refreshes are retransmitted with the original sequence numbers for the message they belonged to.

   b. The most current sequence number (SEQNUM) contains the latest information.

   c. If the SEQNUMS are the same: messages are the same, any of the two messages contains the same information.

Please refer to B.6 Processing of line level Retransmission Messages for a suggested way of processing.

A.12 Message Unavailable

This message will be sent to inform the subscribers of unavailability of a range of messages for which they may have requested retransmission via the Retransmission Multicast channels. Below is the message format.

Field Name	Offset	Size	Format	Value	Description
Set forth below are the 'header' fields of the NYSE Packet Unavailable Message					
MsgSize	0	2	Binary Integer	'22'	Refer to section A.2
MsgType	2	2	Binary Integer	'5'	Refer to section A.2
MsgSeqNum	4	4	Binary Integer		Refer to section A.2
SendTime	8	4	Binary Integer		Refer to section A.2
ProductID	12	1	Binary Integer	'104'	Refer to section A.2
RetransFlag	13	1	Binary Integer	'1'	Refer to section A.2
NumBodyEntries	14	1	Binary Integer	'1'	Refer to section A.2
Filler	15	1	Binary Integer		Refer to section A.2
Defined below are the 'body' fields of the NYSE Packet Unavailable Message					
BeginSeqNum	16	4	Binary Integer		The beginning sequence number of the requested range of messages to be retransmitted.
EndSeqNum	20	4	Binary Integer		The end sequence number of the requested range of messages to be retransmitted.

Overview The following chapter provides workflow diagrams to simplify how the NYSE Alerts messages should be processed

B.1 Processing of messages The following is the recommended way of processing messages
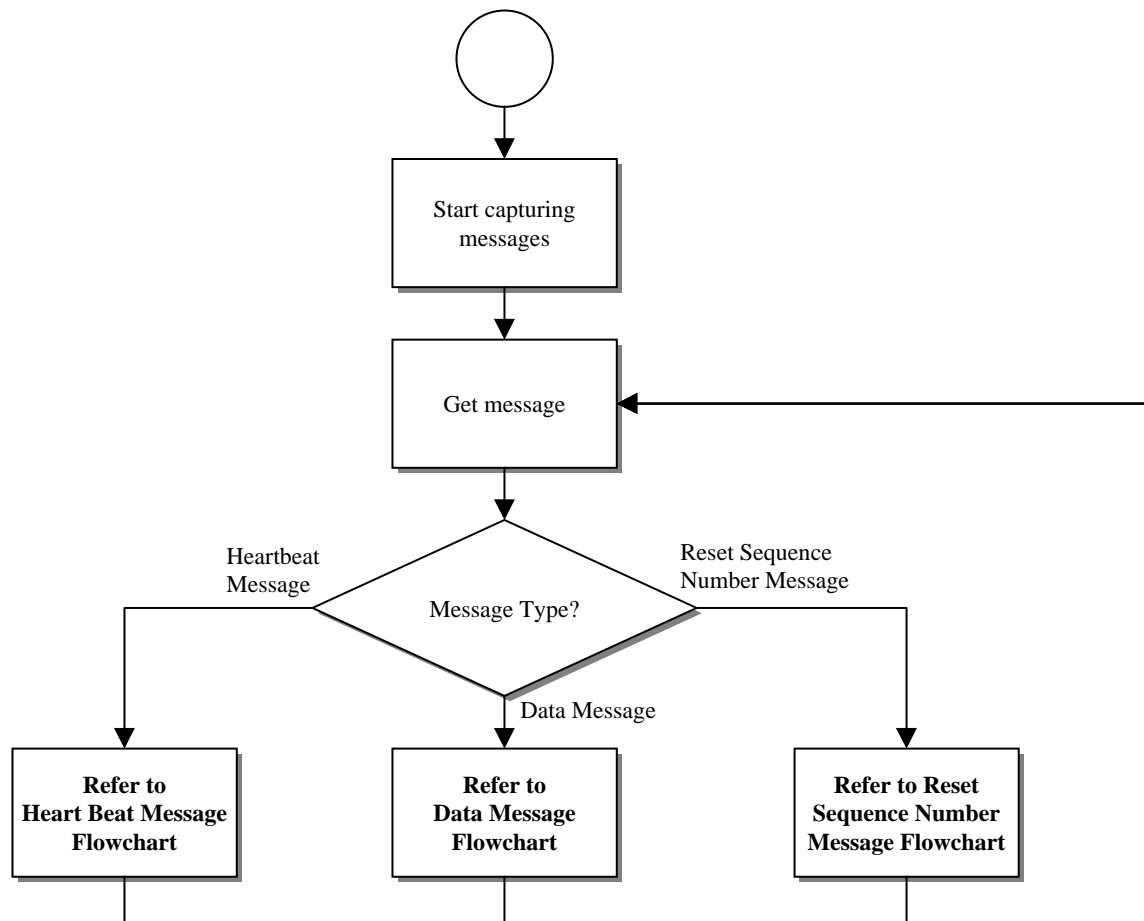

Figure 1. Processing of Messages

B.2 Processing of sequence number reset messages

The following is the recommended way of processing Sequence Number Reset Messages

```
        ( )
         │
         ▼
  ┌──────────────────────┐
  │ Get the Next Sequence │
  │  Number out of        │
  │   the message         │
  └──────────────────────┘
         │
         ▼
  ┌──────────────────────┐
  │ Store (Next Sequence  │
  │   Number - 1)         │
  │ as the last sequence  │
  │  number received      │
  └──────────────────────┘
         │
         ▼
        (●)
```
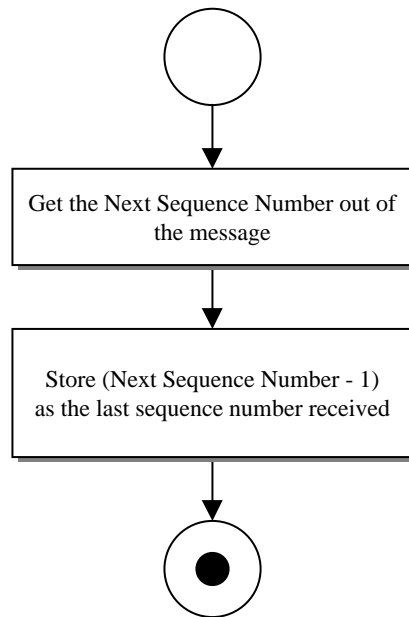
Figure 2. Processing of Sequence Number Reset Message

B.3 Processing of Heartbeat messages

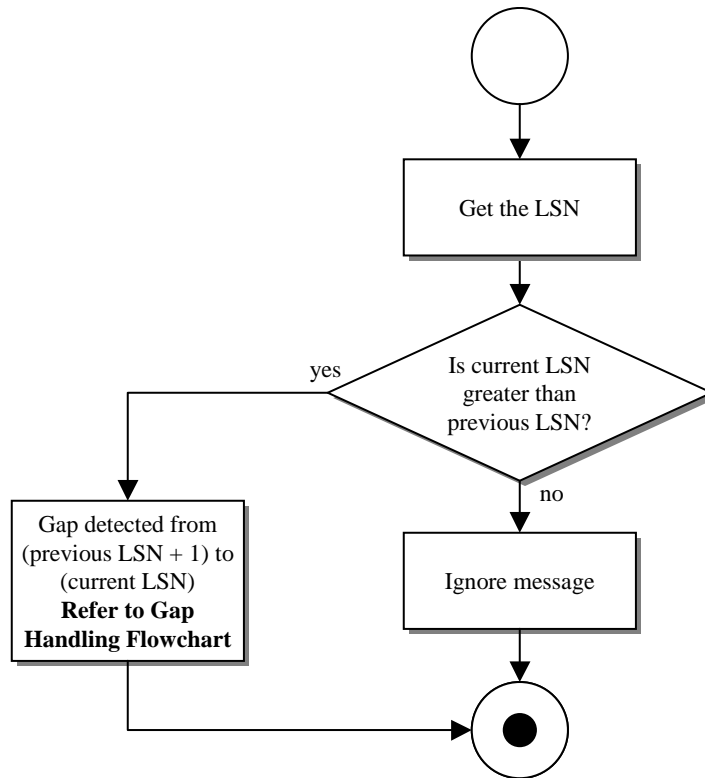The following is the recommended way of processing Heartbeat messages

Figure 3. Processing of Heartbeat Messages

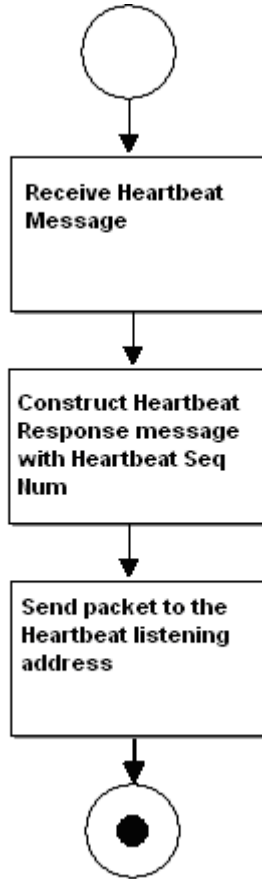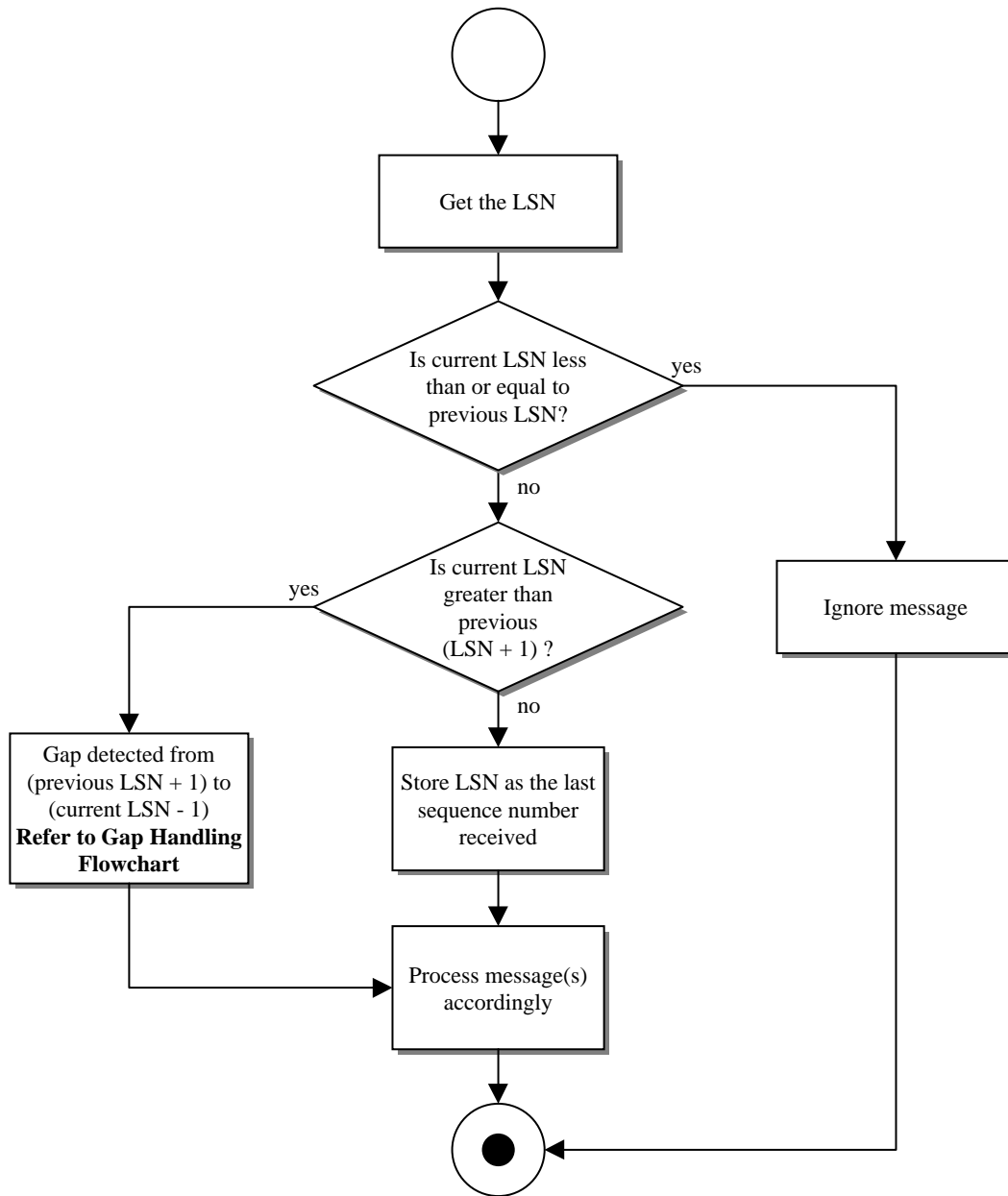**B.4 Processing of Heartbeat response messages**

The following is the recommended way of processing Heartbeat messages

Figure 4. Processing of Heartbeat Response Messages
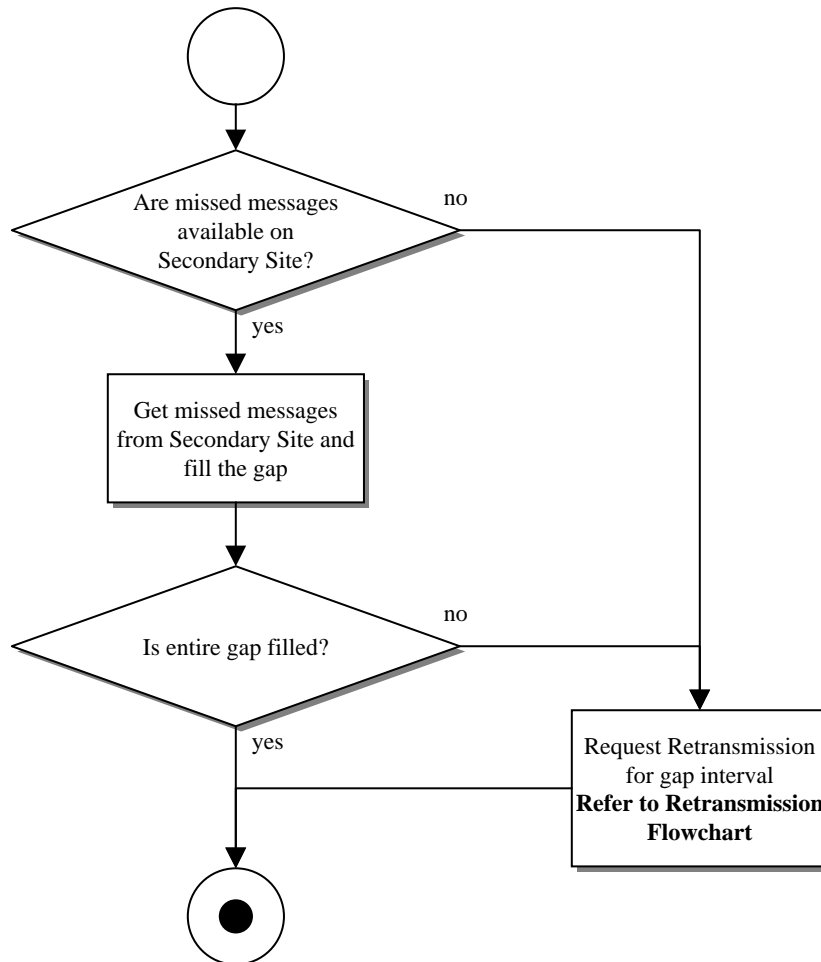
B.5 Processing of Data messages The following is the recommended way of processing Data messages

Figure 5. Processing of Data Messages

B.6 Processing of Gap handling

The following is the recommended way of handling message gaps

```
                        ( start )
                            |
                            v
                    / Are missed messages \        no
                   <      available on      >----------+
                    \   Secondary Site?   /            |
                            |                          |
                           yes                         |
                            v                          |
                 +------------------------+            |
                 |   Get missed messages  |            |
                 | from Secondary Site and|            |
                 |       fill the gap     |            |
                 +------------------------+            |
                            |                          |
                            v                          |
                                          no           |
                   / Is entire gap filled? \-----------+
                   <                        >          |
                    \                      /           |
                            |                          v
                           yes             +------------------------+
                            |              | Request Retransmission |
                            v              |    for gap interval    |
                        (  end  )----------|  Refer to Retransmission|
                                           |       Flowchart        |
                                           +------------------------+
```

Figure 6. Processing of Gap Handling

B.7 Processing of line level retransmissions

The following is the recommended way of handling line level retransmissions
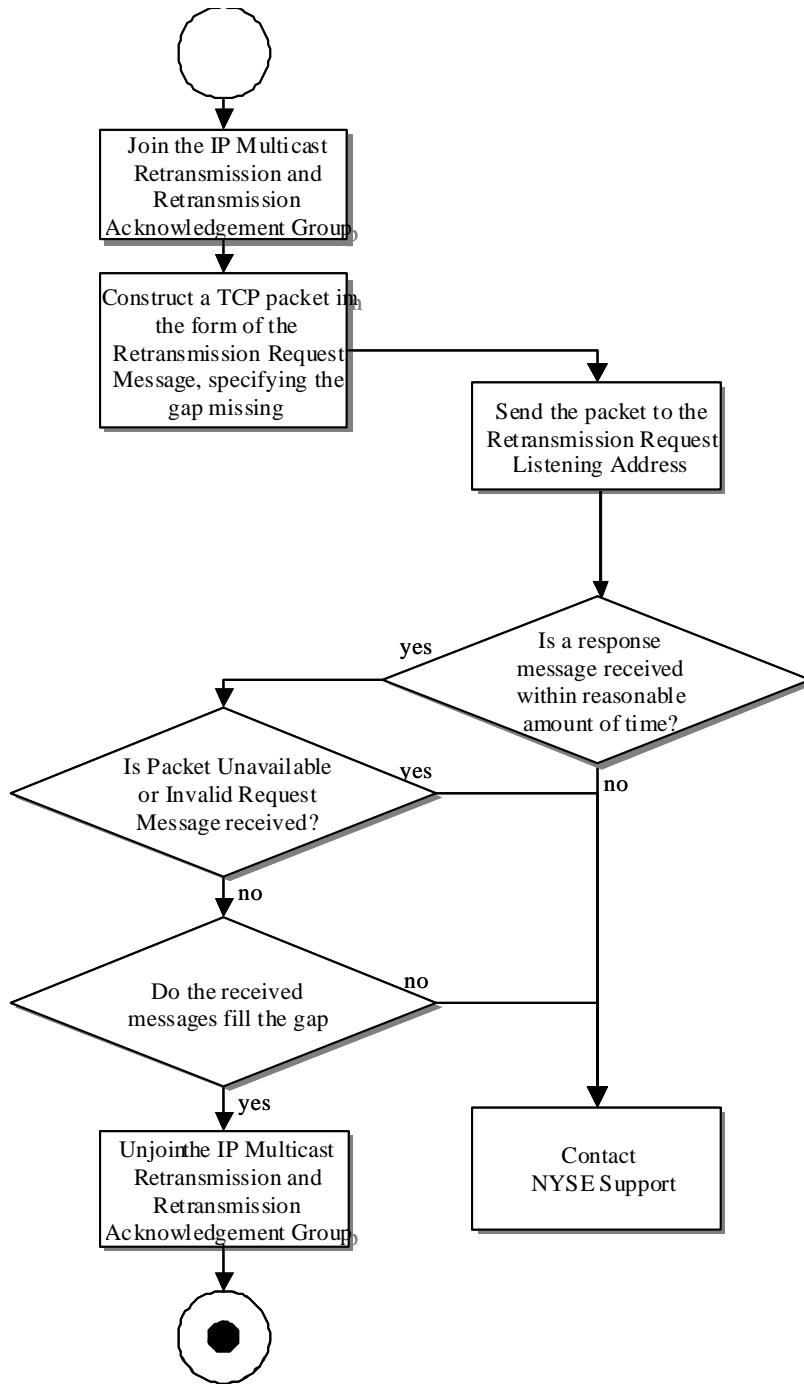
Figure 7. Processing of Line Level Retransmissions

Appendix C– Frequently Asked Questions

Overview   The following section provides information to assist subscribers with frequently asked questions concerning the NYSE Alerts Product. For more up to date information please visit the NYSE Alerts discussion board on http://www.nysedata.com/nysedata/Support/DiscussionBoard/tabid/108/view/topics/forumid/11/Default.aspx

Q: What is the average packet size?
A: The Alerts packet can vary between 18 and 1400 bytes long.

Q: What is the process to define a Source ID for retransmission purposes?
A: Contact NYSE Support and provide the desired Source ID. NYSE Support will evaluate and approve or disapprove the Source ID. In case of disapproval, a new Source ID has to be defined. In case of approval, NYSE Support will make the necessary updates on the product provider side to add the Source ID and applicable rules.

Q: What is the average message rate (messages per second) seen in a normal day for NYSE Quotes?
A: Refer to the NYSE Alerts Impact Guide in chapter 2.

Q: What is the average number of messages seen in a normal day?
A: Refer to the NYSE Alerts Impact Guide in chapter 2.

Q: Will retransmitted data ever come down the normal data feed?
A: No, retransmitted data will always be sent out on the designated retransmission IP/Multicast address/port.

Q: Are the Primary and Secondary feeds identical?
A: The feeds are not identical because they are distributed from 2 (two) different source addresses. However, the data content (like the sequence numbers and message content) are the same and can be used to fill gaps.

Q: We continue to see gaps in the feed even though our network is isolated and our server is underutilized. What could it be?
A: Although collisions are very rare, it is possible to have message gaps due to them. However, it is more likely that your multicast receiver is gapping during a message burst. This may be due to a UDP buffer overflow. NYSE recommends that Subscribers increase the standard UDP buffer setting to capture this burst.

Q: We sent several retransmissions request during the day and they were fulfilled, but now our retransmission requests are no longer being filled. What could it be?
A: Please contact NYSE Support to reactivate your Retransmission ID, as your application may have reached the retransmission thresholds as specified in Appendix A - Section A.

Q: Do I need to establish a TCP/IP connection? Do I need to do this on a daily basis?
A: Yes, a TCP/IP connection is needed for requesting retransmissions of any kind, e.g., dropped packets, book refresh, symbol mappings, etc.

Q: Which Source Subnet is for the Primary feed and for the Secondary Feed?
We are using the subnet model in order to mitigate any kind of server failure on our end. This is why there is no guarantee that the source IP I provide you today will be the same tomorrow. Some firms need to add the Source IPs to their network filters or firewall rules. That is why these Source Subnets are provided.