

FINRA® Securitized Products Dissemination ServiceSM (SPDSSM)

(SPDS 2.1 MOLD/UDP 64)

For Securitized Products Transactions Reported to TRACE

Data Feed Interface Specification

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Introduction

1.0 Introduction

1.1 Background

In 2011, the Financial Industry Regulatory Authority® (FINRA®) added securitized products to the Trade Reporting and Compliance EngineSM (TRACESM). Under FINRA Rule 6700 Series, effective May 16, 2011, all FINRA member firms are required to report trades for eligible asset-backed securities, mortgage backed securities (including and other like securities, collectively referred to hereinafter as securitized products, into TRACE. For more information on TRACE, please refer to the FINRA website at http://www.finra.org/mkt_sys/trace_info.asp.

In association with the addition of securitized products to TRACE, effective November 12, 2012, FINRA, through its service provider NASDAQ, introduced the Securitized Products Dissemination ServiceSM (SPDSSM). The SPDS data feed is used to broadcast last sale price and other relevant trade data for securitized products to authorized market data vendors.

SPDS disseminates Agency Pass-Through and SBA-Backed specified pool transactions ("MBS"), as well as SBA-Backed Securities that are traded to be announced ("SBA TBA"). Note: In lieu of disseminating the CUSIP and or Symbol for the specified pool transactions, FINRA disseminates transaction information using reference data elements which will are encompassed in the Reference Data Identifier (RDID) field in the structure for all MBS messages. Additional information regarding the processing of these transactions are described in later sections of this specification. SBA TBA transactions will be disseminated in the same manner as TBA transactions.

SPDS disseminates trades of certain Asset-Backed Securities (ABS) as described in Rule Filing SR-FINRA-2013-046.

SPDS will o disseminates Collateralized Mortgage Obligations (CMO) transactions as described in Rule Filing SR-FINRA-2016-023.

As the transactions are entered into TRACE, FINRA will automatically generate data messages to be disseminated real-time on SPDS. SPDS broadcasts last sale price and trade data on securitized products transactions reported to TRACE. The service is similar in message structure and delivery to the Bond Trade Dissemination ServiceSM (BTDSSM) and Agency Debt Trade Dissemination ServiceSM (ATDSSM) broadcast feeds. Since SPDS is a separate product from BTDS or ATDS, interested vendors are required to subscribe to receive this feed, regardless of whether or not they receive the BTDS or the ATDS feeds.

SPDS originates from NASDAQ data centers located in the New York and Mid-Atlantic areas. These locations provide back-up capability to one another in the event of an emergency at either site.

Introduction

1.2 Scope

This document defines the communications interface and message format requirements for the output from SPDS. All references to a time of day in this specification are in Eastern Standard/Daylight Time. Direct access to FINRA and NASDAQ data feed products is available through select network providers (http://www.nasdaqtrader.com/content/ProductsServices/Trading/extranets.pdf).

The SPDS data feed contains information from the CUSIP Service Bureau. As a result, a firm must have a CUSIP daily licensing agreement in place to receive the direct SPDS data feed product. Please refer to www.cusip.com for more information.

It should be noted that FINRA has the right to add, delete, or modify the message formats outlined in this document as needed. In advance of any data format changes, FINRA will publicly notify its SPDS customers by posting a news item on the Internet with the details of the release. FINRA will also update this SPDS interface specification document on a regular basis.

1.3 Document Scope/Software Releases

Effective **May 19, 2025**, FINRA will release a new version of the SPDS data feed formats, version SPDS 2.1(MOLD/UDP). The SPDS message formats support:

- New message protocol (MOLD/UDP)
- Automation of retransmissions via a dedicated unicast channel
- Trade ID now included in the Message Header
- Session Identifier, Retransmission Requester, and Message Sequence Number eliminated from the Message Header and now included in the message protocol layer
- Start of Day, End of Day, End of Trade Reporting, and End of Transmission Control messages will only be broadcast one time instead of three

This document was last updated on November 19, 2024. Please refer to Appendix D of this document for version control information. FINRA reserves the right to add, delete, or modify any of the message formats outlined in this document as needed. As noted above, direct data feed subscribers are required to code their systems to handle data feed format changes. In advance of each SPDS product change, FINRA will post a technical notice via the FINRA.org web site detailing the data feed format change and release schedule.

System Description

2.0 General System Description

2.1 Interface Protocol

SPDS is a separate channel on the private data work. The bandwidth for the SPDS channel will not exceed 56 kilobits per second (kbps). Please note that FINRA reserves the right to modify the bandwidth allocation for the IP call and/or to upgrade the network connectivity as system capacity dictates.

FINRA broadcasts two (a primary and a back-up) multicast groups at two locations (a primary data center and a disaster recovery data center) with SPDS data feeds. With the exception of the IP addresses, the data for the two multicast groups is identical.

All messages sent from FINRA via SPDS to the client are sequenced, and their delivery is guaranteed by the MoldUdp64 protocol.

http://www.nasdagtrader.com/content/technicalsupport/specifications/dataproducts/moldudp64.pdf

2.2 Transmission Protocol

To minimize data loss, FINRA provides primary and back-up groups for its data feed services (At two locations; New York Metro and Mid-Atlantic Metro). They strongly recommend that all direct data feed subscribers program their systems to process both the primary and back-up groups. The purpose of two host groups is to provide an extra layer of data redundancy within the extranet and end-user networks. By reading and utilizing both multicast groups into their production environment, IP multicast customers can help to protect themselves against network anomalies which could cause interruptions in data flow. To minimize data loss, FINRA strongly recommends that data feed customers process both the primary and back-up groups within their networks. Each IP multicast stream will be assigned a unique Class D host group address for transmission via the extranets. The Class D addresses have been registered by NASDAQ with The NIC Group. Please refer to the IP Multicast Data Feed Addressing Information page on the FINRA.org website for the current IP multicast addresses and port assignments for SPDS.

2.3 Retransmission Capability

Defined in MOLD/UDP 64 specification.

Transmission Characteristics

3.0 Transmission Characteristics

Defined in MOLD/UDP 64 specification.

Message Header

4.0 Message Header

Each SPDS message will begin with a 24-byte header. The Message Header defines the type of data in the subsequent message. Please note that Alphabetic and Alphanumeric fields are left justified and space filled unless otherwise specified. Numeric fields are right justified and zero filled unless otherwise specified.

The Message Header always contains 24 characters consisting of the following data fields:

Message	Message	Trade	Market	Date/ Time
Category	Type	Identifier	Center	
1	1	7	1	14

24 BYTES

Message Category

The Message Category is a 1 byte, alphabetic character. This field along with the Message Type, identifies the message. The following table defines the Message Categories that SPDS supports.

Category	Usage	
T	Trade	
С	Control	
A	Administrative	

Message Type

The Message Type is a 1 byte, alphabetic character. This field further identifies the type of information included in the message. The following defines the Message Types (in conjunction with the Message Categories) for SPDS dissemination:

Trade Messages:

Category	Type	Usage
T	M	Trade Report
T	P	Trade Report – MBS
T	N	Trade Cancel
T	Q	Trade Cancel – MBS
T	О	Trade Correction
T	R	Trade Correction – MBS

Message Header Control Messages:

Category	Type	Usage	
С	I	Start of Day	
С	J	End of Day	
С	О	Market Session Open	
С	С	Market Session Close	
С	X	End of Trade Reporting	
С	Z	End of Transmissions	

Administrative Messages:

Category	Type	Usage
A	Е	Daily Trade Summary
A	F	Daily Trade Summary – MBS
A	Н	Trading Halt
A	A	General Administrative Message (Future)

Trade Identifier

Trade Identifier (Trade Id) is an identifier for tracking trades. Cancel/Error or Correction messages will include the **original trade identifier** of the trade being canceled or corrected in the **Original Trade Identifier field in the body of the message**. The Trade Identifier is unique per session.

NOTE: The Trade Identifier field in the message header is populated for Trade and Correction messages only. Cancel messages do not include the Trade Identifier field in the message header.

Message Header

Market Center Originator ID

The Market Center is a 1 byte, alphabetic character to indicate the Market Center or Exchange that originated the message.

Code	Usage
О	Over the Counter

Message Header

Date/Time

SPDS will place a time stamp on each message disseminated to recipients of the service. The date/time is the calendar date and time that the record was entered into FINRA's trade reporting system. It is 14 bytes, Numeric, in the format:

Date	Date	Date Day	Time	Time	Time
Year	Month		Hour	Minute	Second
4	2	2	2	2	2

Date Year: The year the transaction was reported. This four byte field will be stated in numeric format, for example 2012.

Date Month: The month the transaction was reported. This two byte field is stated in numeric format with possible values of 01 to 12.

Date Day: The day of the month the transaction was reported. This two byte field is stated in numeric format with possible values of 01 to 31.

Time Hour: The hour of the day the transaction was reported in military time. This two byte field is stated in numeric format with possible values of 00 to 23.

Time Minute: The minute of the hour the transaction was reported. This two byte field is stated in numeric format with possible values of 00 to 59.

Time Second: The second of the minute the transaction was reported. This two byte field is stated in numeric format with possible values of 00 to 59.

Note: All times are in Eastern Time.

Message Formats

5.0 Data Formats

This section outlines the fixed format Trade and Administrative message formats used to disseminate the SPDS data feed to direct connect subscribers. For field definitions, please refer to Section 7 of this specification document.

<u>Note</u>: SPDS Control message formats are comprised of the message header only. For processing information on the Control messages, please refer to Section 10 of this specification document.

Trade Messages

The following message formats are used to disseminate SPDS. For processing guidelines, please refer to Section 8. **Note:** Separate message types have been created for the dissemination of MBS transactions. The MBS message types incorporate the Reference Data Identifier (RDID) in lieu of Symbol, CUSIP and BSYM identifiers. In addition, MBS message types do not include Factor.

Trade Reports

Category T – Type M (for TBA, ABS and certain CMO (quantity less than 1Million) transactions)

The following message type is used to transmit trade transaction information to SPDS subscribers.

Label

Symbol	CUSIP	BSYM	Sub-Product Type
14	9	12	5

Subtotal: 40 Bytes

Additional Information

Original Dissemination Date	
8	

Subtotal: 8 Bytes

Trade Information

Quantity Indicator	Quantity	Price	Remuneration*	Special Price Indicator
1	14	11	1	1

Side*	As/Of Indicator	Execution Date/Time	Future Use	Sale Condition 3
1	1	14	2	1

Message Formats

Sale	Settlement	Factor
Condition 4	Date	
1	8	12

Reporting Party Type*	Contra Party Type*	ATS Indicator*
1	1	1

Subtotal: 71 Bytes

Summary Information

Change Indicator

Subtotal: 1 Byte

Total Message Size: 120 Bytes

^{*} Please note that for ABS trades, the Side, Reporting Party Type, Contra Party Type and Remuneration fields will not be populated, and will instead be space-filled. In addition, the ATS Indicator field will always be space-filled on ABS and TBA trades. Also for CMO trades (qty < 1 Million), Side, Reporting Party Type, Contra Party Type and Remuneration fields will be space-filled.

Message Formats

Trade Reports – MBS

Category T – Type P

The following message type is used to transmit trade transaction information for MBS to SPDS subscribers.

Label

RDID	Sub-Product Type
25	5

Subtotal: 30 Bytes

Additional Information

Original Dissemination Date	
8	

Subtotal: 8 Bytes

Trade Information

Quantity Indicator	Quantity	Price	Remuneration	Special Price Indicator
1	14	11	1	1

Side	As/Of Indicator	Execution Date/Time	Future Use	Sale Condition 3
1	1	14	2	1

ale	Settlement	Reporting Party	Contra Party	ATS
ition 4	Date	Type	Type	Indicator
1	8	1	1	

Subtotal: 59 Bytes

Message Formats

Summary Information

Change Indicator

1

Subtotal: 1 Byte

Total Message Size: 98 Bytes

Message Formats

Trade Cancel

Category T- Type N (for TBA, ABS and certain CMO (quantity less than 1Million)
This message is used to notify SPDS customers if a trade report entered during the past 20 business days, inclusive of the current day, has been cancelled (prior day Cancels are identified where the Original Dissemination Date is populated with a date prior to the current day – up to 20 business days prior). A detailed summary section containing high/low/last sale price information for the issue will follow the original trade section.

Label

Symbol	CUSIP	BSYM	Sub-Product
-			Type
14	9	12	5
1.		12	2

Subtotal: 40 Bytes

Additional Information

Original Dissemination Date	Original Trade Identifier	Function
8	7	1

Subtotal: 16 Bytes

Original Trade Information

Quantity Indicator	Quantity	Price	Remuneration*	Special Price Indicator
1	14	11	1	1

Side*	As/Of Indicator	Execution Date/Time	Future Use	Sale Condition 3
1	1	14	2	1

Sale	Settlement	Factor
Condition 4	Date	
1	8	12

Message Formats

Reporting Party Type*	Contra Party Type*	ATS Indicator*
1	1	1

Subtotal: 71 Bytes

Summary Information

High Price	Low Price	Last Sale Price	Change Indicator
11	11	11	1

Subtotal: 34 Bytes

Total Message Size: 161 Bytes

^{*} Please note that for ABS trades, the Side, Reporting Party Type, Contra Party Type and Remuneration fields will not be populated, and will instead be space-filled. In addition, the ATS Indicator field will always be space-filled on ABS and TBA trades. Also for CMO trades (qty < 1 Million), Side, Reporting Party Type, Contra Party Type and Remuneration fields will be space-filled.

Message Formats

Trade Cancel - MBS

Category T- Type Q

This message is used to notify SPDS customers if a trade report for an MBS, entered during the past 20 business days, inclusive of the current day, has been cancelled (prior day Cancels are identified where the Original Dissemination Date is populated with a date prior to the current day – up to 20 business days prior). A detailed summary section containing high/low/last sale price information for the issue will follow the original trade section.

Label

RDID	Sub-Product Type
25	5

Subtotal: 30 Bytes

Additional Information

Original Dissemination Date	Original Trade Identifier	Function
8	7	1

Subtotal: 16 Bytes

Original Trade Information

Quantity Indicator	Quantity	Price	Remuneration	Special Price Indicator
1	14	11	1	1

Side	As/Of Indicator	Execution Date/Time	Future Use	Sale Condition 3
1	1	14	2	1

Sale	Settlement	Reporting Party	Contra Party	ATS
Condition 4	Date	Type	Type	Indicator
1	8	1	1	1

Subtotal: 59 Bytes

Message Formats

Summary Information

High Price	Low Price	Last Sale Price	Change Indicator
11	11	11	1

Subtotal: 34 Bytes

Total Message Size: 139 Bytes

Message Formats

Trade Correction

Category T, Type O (for TBA, ABS and certain CMO (quantity less than 1Million)
This message is used to notify SPDS customers if a trade report entered during the past 20 business days, inclusive of the current day, has been corrected (prior day Corrections are identified where the Original Dissemination Date is populated with a date prior to the current day – up to 20 business days prior). If the original trade was not disseminated, the Original Dissemination Date will be space-filled.

A detailed summary section containing high/low/last sale price information for the issue will follow the correction trade section.

Label

Symbol	CUSIP	BSYM	Sub-Product Type
14	9	12	5

Subtotal: 40

Additional Information

Original Dissemination Date	Original Trade Identifier	Function
8	7	1

Subtotal: 16 Bytes

Original Trade Information

Quantity Indicator	Quantity	Price	Remuneration*	Special Price Indicator
1	14	11	1	1

Side*	As/Of Indicator	Execution Date/Time	Future Use	Sale Condition 3
1	1	14	2	1

Sale	Settlement	Factor
Condition 4	Date	
1	8	12

Message Formats

Reporting Party Type*	Contra Party Type *	ATS Indicator*
1	1	1

Subtotal: 71 Bytes

Correction Trade Information

Quantity Indicator	Quantity	Price	Remuneration*	Special Price Indicator
1	14	11	1	1

Side*	As/Of Indicator	Execution Date/Time	Future Use	Sale Condition 3
1	1	14	2	1

Sale Condition 4	Settlement Date	Factor
1	8	12

Reporting Party Type*	Contra Party Type *	ATS Indicator*
1	1	1

Subtotal: 71 Bytes

Summary Information

High Price	Low Price	Last Sale Price	Change Indicator
11	11	11	1

Subtotal: 34 Bytes

Total Message Size: 232 Bytes

^{*} Please note that for ABS trades, the Side, Reporting Party Type, Contra Party Type and Remuneration fields will not be populated, and will instead be space-filled. In addition, the ATS Indicator field will always be space-filled on ABS and TBA trades. Also for CMO trades (qty < 1)

Message Formats

Million), Side, Reporting Party Type, Contra Party Type and Remuneration fields will be space-filled.

Trade Correction - MBS

Category T, Type R

This message is used to notify SPDS customers if a trade report for an MBS entered during the past 20 business days, inclusive of the current day, has been corrected (prior day Corrections are identified where the Original Dissemination Date is populated with a date prior to the current day – up to 20 business days prior). If the original trade was not disseminated, the Original Dissemination Date will be space-filled.

A detailed summary section containing high/low/last sale price information for the issue will follow the correction trade section.

Label

RDID	Sub-Product Type
25	5

Subtotal: 30

Additional Information

Original Dissemination Date	Original Trade Identifier	Function
8	7	1

Subtotal: 16 Bytes

Original Trade Information

Quantity Indicator	Quantity	Price	Remuneration	Special Price Indicator
1	14	11	1	1

Side	As/Of Indicator	Execution Date/Time	Future Use	Sale Condition 3
1	1	14	2	1

Message Formats

Sale	Settlement	Reporting Party	Contra Party	ATS
Condition 4	Date	Type	Type	Indicator
1	8	1	1	1

Subtotal: 59 Bytes

Correction Trade Information

Quantity Indicator	Quantity	Price	Remuneration	Special Price Indicator
1	14	11	1	1

Side	As/Of Indicator	Execution Date/Time	Future Use	Sale Condition 3
1	1	14	2	1

Sale	Settlement	Reporting Party	Contra Party	ATS
Condition 4	Date	Type	Type	Indicator
1	8	1	1	1

Subtotal: 59 Bytes

Summary Information

Summary information				
High Price	Low Price	Last Sale Price	Change Indicator	
11	11	11	1	

Subtotal: 34 Bytes

Total Message Size: 198 Bytes

Message Formats

Administrative Message Formats

FINRA will use administrative message formats to transmit daily pricing summary, trading halt, and general information to SPDS customers. Please refer Section 9 of this document for processing information.

Daily Trade Summary

Category A – Type E (for TBA, ABS and certain CMO (quantity less than 1Million) FINRA will disseminate the following price summary message for each security that traded during the normal trading hours.

Symbol	CUSIP	BSYM	Sub-Product Type	Daily High Price	Daily Low Price
14	9	12	5	11	11

Daily Close Price	
11	

Total Message Size: 73 Bytes

Daily Trade Summary - MBS

Category A - Type F

FINRA will disseminate the following price summary message for each MBS that traded during the normal trading hours.

RDID	Sub-Product	Daily High	Daily Low
	Type	Price	Price
25	5	11	11

Daily Close Price	
11	

Total Message Size: 63 Bytes

Message Formats

Trading Halt

Category A – Type H(for TBA, ABS and certain CMO (quantity less than 1Million) FINRA will disseminate the following message format when a trading halt is instituted or removed for a security.

Symbol	CUSIP	BSYM	Sub-Product Type	Issuer
14	9	12	5	30

Action	Action Date/Time	Halt Reason
1	14	4

Total Message Size: 89 Bytes

General Administrative Message

Category A – Type A

In a future release, FINRA will disseminate the following free-form text message format to relay general administrative information.

T	ext
1	- 300

Field Occurrences

${\bf 6.0\ Field\ Occurrences\ Within\ Messages}$

FIELD NAME	MESSAGE CATEGORY	MESSAGE TYPE
<u>A</u>		
ACTION	A	H, I
ACTION DATE/TIME	A	H, I
AS/OF INDICATOR	Т	M, P
	Т	N, Q
	Т	O, R
ATS INDICATOR	Т	M, P
	Т	N, Q
	Т	O, R
<u>B</u>		
BSYM	Т	M
	Т	N
	Т	O
	A	Е
	A	Н
<u>C</u>		
CHANGE INDICATOR	Т	M, P
	Т	N, Q
	T	O, R
CONTRA PARTY TYPE	Т	M, P
	Т	N, Q
	T	O, R
CUSIP	Т	M
	Т	N
	Т	О
	A	Е
	A	Н
<u>D</u>		

Field Occurrences

FIELD NAME	MESSAGE CATEGORY	MESSAGE TYPE
DAILY CLOSE PRICE	A	E, F
DAILY HIGH PRICE	A	E, F
DAILY LOW PRICE	A	E, F
<u>E</u>		
EXECUTION	Т	M, P
DATE/TIME	Т	N, Q
	Т	O, R
<u>F</u>		
FACTOR	Т	M
	Т	N
	T	О
FUNCTION	Т	N, Q
	T	O, R
<u>H</u>		
HALT REASON	A	Н
HIGH PRICE	T	N, Q
	Т	O, R
Ī		
ISSUER	A	Н
<u>L</u>		
LAST SALE PRICE	Т	N, Q
	Т	O, R
LOW PRICE	T	N, Q
	T	O, R
<u>o</u>		
ORIGINAL	Т	M, P
DISSEMINATION DATE	T	N, Q
	T	O, R

Field Occurrences

FIELD NAME	MESSAGE CATEGORY	MESSAGE TYPE
ORIGINAL TRADE	T	N, Q
IDENTIFIER	T	O, R
<u>P</u>		
PRICE	T	M, P
	T	N, Q
	T	O, R
Q		
QUANTITY	T	M, P
	T	N, Q
	T	O, R
QUANTITY INDICATOR	Т	M, P
	T	N, Q
	T	O, R
<u>R</u>		
REFERENCE DATA	T	P
IDENTIFIER	T	Q
	T	R
	A	F
REMUNERATION	Т	M, P
	T	N, Q
	T	O, R
REPORTING PARTY	T	M, P
TYPE	T	N, Q
	T	O, R
<u>S</u>		
SALE CONDITION 3	Т	M, P
	T	N, Q
	T	O, R
SALE CONDITION 4	T	M, P
	T	N, Q
	T	O, R

Field Occurrences

FIELD NAME	MESSAGE CATEGORY	MESSAGE TYPE
SETTLEMENT DATE	T	M, P
	T	N, Q
	T	O, R
SIDE	T	M, P
	T	N, Q
	T	O, R
SPECIAL PRICE	Т	M, P
INDICATOR	T	N, Q
	T	O, R
SUB-PRODUCT TYPE	T	M, P
	T	N, Q
	T	O, R
	A	E, F
	A	Н
SYMBOL	T	M
	T	N
	T	О
	A	Е
	A	Н
<u>T</u>		
TEXT	A	A

7.0 Field Descriptions

This section defines the size and layout for each field contained in a SPDS message format. For a glossary of terms, please refer to Appendix A.

<u>A</u>

Action

Category A - Type H

One byte, alphabetic. This field describes what event is happening on the specific security. Associated values are:

Code	Value
Н	Trading Halt (Date and Time fields represent time that the halt was instituted for the security)
R	Trading Resumption (Date and Time fields represent the time that trading is expected to resume in the security)

Action Date/Time

 $Category\,A-Type\,H$

Fourteen bytes, numeric in the format YYYYMMDDHHMMSS. This field represents the date and time that the trading halt was instituted or lifted for the specified security.

As Of Indicator

Category T – Type M, N, O, P, Q, R

One byte, alphabetic. This field will be populated if the transaction being reported is an As/Of trade or Reversal from a prior business day. Reversals are cancellations of trades that were reported 21 business days or more prior to the current day. Associated values for this field are:

Code	Value
A	As/Of Trade
R	Reversal
Space	Current Day Trade

ATS Indicator

Category T – Type M, N, O, P, Q, R

One byte, alphabetic. This field will be populated if the transaction being reported is an ATS execution (except on ABS and TBA trades). An ATS execution can be either where an ATS reports the trade, is a contra party to the trade, or is neither but the trade is executed on an ATS's platform. Associated values for this field are:

Code	Value
Y	ATS Trade
Space	Not an ATS Trade

<u>B</u>

BSYM

Category T – Type M, N, O

Category A - Type E, H

12 bytes, alphanumeric. This is the Bloomberg identifier (provided when applicable) for the specific security.

<u>C</u>

Change Indicator

Category T – Type M, N, O, P, Q, R

One byte, numeric. Describes the price change(s) that the transaction caused for the issue traded.

Code	Values
0	No Changed
1	Last Price Changed
2	Low Price Changed
3	Last Price and Low Price Changed
4	High Price Changed
5	Last Price and High Price Changed
6	High Price and Low Price Changed
7	All Prices Changed

Contra Party Type

Category T – Type M, N, O, P, Q, R

One byte, alphabetic. This field identifies the type of contra party which the reported trade was executed against - a Broker/Dealer, a Customer (non-FINRA member) an Affiliate (non-member affiliate) or an Alternative Trading System (ATS). Space-filled on ABS and CMO trades. Associated values are as follows:

Code	Value
D	Contra party is a Broker/Dealer
С	Contra party is a Customer (non-FINRA member)
A	Contra party is a non-member affiliate
T	Contra party is an Alternative Trading System (ATS)

CUSIP

Category T – Type M, N, O

Category A - Type E, H

Nine bytes, alphanumeric. This is the universal identifier for the specific security as assigned by Standard & Poor's CUSIP Service Bureau.

 \mathbf{D}

Daily Close Price

Category A – Type E, F

Eleven bytes, numeric, zero filled. This will represent the closing price reported for the specific security for the day. Daily Close Price is stated in \$\$\$\$.dddddd format, where the first four bytes represents the whole number, the fifth byte is a decimal point, and the last six bytes represents the decimal amount of the trade price. If the Daily Close Price is not available for a security, this field will be zero filled.

Daily High Price

Category A – Type E, F

Eleven bytes, numeric, zero filled. This will represent the high price reported for the specific security for the day. Daily High Price is stated in \$\$\$\$.dddddd format, where the first four bytes represents the whole number, the fifth byte is a decimal point, and the last six bytes represents the decimal amount of the trade price. If the Daily High Price is not available for a security, this field will be zero filled.

Daily Low Price

Category A – Type E, F

Eleven bytes, numeric, zero filled. This will represent the low price reported for the specific security for the day. Daily Low Price is stated in \$\$\$\$.dddddd format, where the first four bytes represents the whole number, the fifth byte is a decimal point, and the last six bytes represents the decimal amount of the trade price. If the Daily Low Price is not available for a security, this field will be zero filled.

 \mathbf{E}

Execution Date/Time

Category T – Type M, N, O, P, Q, R

Fourteen bytes, numeric in the format YYYYMMDDHHMMSS. This field represents the date that the FINRA member firm executed the trade transaction. If the transaction reported was an As/Of trade or a Reversal, this field will be populated with the date that the original trade was executed by the FINRA member firm.

F

Factor

Category T – Type M, N, O

Twelve bytes, numeric in the format NN.NNNNNNNNNNN where the third byte will always be a decimal point. This field indicates a reported factor on a trade that was not based on the latest published factor of that security. A Factor of 00.000000000 indicates the trade was executed and reported based on the latest published factor for that security.

Function

Category T – Type N, O, Q, R

One byte, alphabetic. This field indicates if the transaction being disseminated is being taken out because it either is being canceled or was done in error. Associated values are:

Code	Value
С	Cancel
E	Error
N	Correction

Field Descriptions <u>H</u>

Halt Reason

Category A – Type H

Four bytes, alphanumeric. This field describes the specific reason for a halt being placed on a security. Associated values are:

Code	Values
T.1	Halt – News Pending
T.2	Halt – News Released
T.3	Halt – News and resumption times
T.12	Halt – Additional Information Requested by FINRA
H.10	Halt – SEC Trading Suspension
H.11	Halt – Regulatory Concerns

High Price

Category T – Type N, O, Q, R

Eleven bytes, numeric, zero filled. The High Price field contains the current highest price for which the specified bond issue was traded for the current day. The High Price will be stated in \$\$\$\$.dddddd format, where the first four bytes represents the whole number, the fifth byte is a decimal point, and the last six bytes represents the decimal amount of the trade price. If the High Price is not available for a bond, this field will be zero filled.

Ī

Issuer

Category A – Type H

Thirty bytes, alphanumeric. This field will provide the name of the entity that issued the security. Please note that, due to character limitations, the company name may be truncated for this field.

 $\underline{\mathbf{L}}$

Last Sale Price

Category T – Type N, O, Q, R

Eleven bytes, numeric, zero filled. This will represent the last sale price reported for the specific security for the day. The Last Sale Price will be stated in \$\$\$\$.ddddd format, where the first

four bytes represents the whole number, the fifth byte is a decimal point, and the last six bytes represents the decimal amount of the trade price. If the Last Sale Price is not available for a security, this field will be zero filled.

Low Price

Category T – Type N, O, Q, R

Eleven bytes, numeric, zero filled. This will represent the current low price for which the specified security was traded for the day. The Low Price will be stated in \$\$\$\$.dddddd format, where the first four bytes represents the whole number, the fifth byte is a decimal point, and the last six bytes represents the decimal amount of the trade price. If the Low Price is not available for a security, this field will be zero filled.

<u>O</u>

Original Dissemination Date

Category T – Type M, N, O, P, Q, R

Eight bytes, numeric. Represents the date when the original message on a Reversal (As Of Indicator = R), Trade Cancel or Trade Correction was disseminated.

Original Message Trade Identifier

Category T – Type N, O, Q, R

Seven bytes, numeric. The Original Trade Identifier field indicates the id of the original outbound message for the transaction being reversed. This field will be zero filled when not applicable.

<u>P</u>

Price

Category T – Type M, N, O, P, O, R

Eleven bytes, numeric, zero filled. This field represents the security price, inclusive of any commission, mark-ups, and/or mark-downs, reported in the transaction. The Price will be stated in \$\$\$\$.dddddd format, where the first four bytes represents the whole number, the fifth byte is a decimal point, and the last six bytes represents the decimal amount of the trade price. If the Price is not reported for a security, this field will be zero filled.

 \mathbf{Q}

Quantity

Category T – Type M, N, O, P, Q, R

Fourteen bytes, alphanumeric, including special characters. Represents the dollar size amount (volume) of the transaction, inclusive of a decimal. The field is right-justified, zero-filled unused positions on actual amounts and left-justified, space-filled unused positions on amounts with special limits applied (capped) as defined below.

Please note that the following special limits apply to this field:

For trades of TBA Good for Delivery (GD) securities:

- If the reported volume of the transaction is less than or equal to \$25 million, the Quantity will state the actual reported volume.
- If the reported volume of the transaction is greater than \$25 million, the Quantity will be stated as 25MM+.

For trades of TBA Not Good for Delivery (NGD) securities:

- If the reported volume of the transaction is less than or equal to \$10 million, the Quantity will state the actual reported volume.
- If the reported volume of the transaction is greater than \$10 million, the Quantity will be stated as 10MM+.

For trades of MBS:

- If the reported volume of the transaction is less than or equal to \$10 million, the Quantity will state the actual reported volume.
- If the reported volume of the transaction is greater than \$10 million, the Quantity will be stated as 10MM+.

For trades of ABS:

- If the reported volume of the transaction is less than or equal to \$10 million, the Quantity will state the actual reported volume.
- If the reported volume of the transaction is greater than \$10 million, the Quantity will be stated as 10MM+.

For trades of CMO:

• Transactions with a reported volume less than \$1 million, the Quantity will state the actual reported volume. Transactions with a reported volume equal to or greater than \$1 million will not be subject to dissemination.

Quantity Indicator

Category T – Type M, N, O, P, Q, R

One byte, alphabetic. This field indicates if the quantity reported is actual or estimated (when special limit caps are applied). Associated values are as follows:

Code	Value
A	Actual
Е	Estimated

<u>R</u>

RDID

Category T – Type P, Q, R

Category A – Type F

25 bytes maximum, alphanumeric with special characters. The reference data identifier for the transaction. The Reference Data Identifier (RDID) is included in specific messages in lieu of Symbol, CUSIP and BSYM identifiers.

Remuneration

Category T – Type M, N, O, P, Q, R

One byte, alphabetic. This field identifies if the reported trade price includes remuneration. Remuneration only applies on Customer and Affiliate trades. Space-filled on ABS and CMO trades. Associated values are as follows:

Code	Value
С	Commission is included in the price
M	A Markup or Markdown is included in the price
N	No Commission or Markup/Markdown is included in the price
Space	No value assigned on Inter-Dealer trades

Field Descriptions

Reporting Party Type

Category T – Type M, N, O, P, Q, R

One byte, alphabetic. This field identifies the type of entity that reported the trade. Space-filled on ABS and CMO trades. Associated values are as follows:

Code	Value
D	Reporting party is a Broker/Dealer
Т	Reporting Party is an Alternative Trading System (ATS)

<u>S</u>

Sale Condition 3

Category T – Type M, N, O, P, Q, R

One byte, alphanumeric. This field is used to describe a sale condition that is applicable to the trade. Associated values are:

Code	Value		
Т	Trade reported after Market Hours		
Z	Trade reported Late (Out of Sequence)		
U	Trade reported Late after Market Hours		
Space	No Modifier		

Sale Condition 4

Category T – Type M, N, O, P, Q, R

One byte, alphanumeric including special characters. This field will indicate if there are any special conditions or modifiers applicable to the trade transaction. Associated values are:

Code	Value			
Space	Regular Trade			
О	Specified Pool Transaction			
N	Stipulation Transaction			
D	Dollar Roll w/o Stipulation			
L	Stipulated Dollar Roll			
W	Weighted Average Price			

Field Descriptions

For more information on these Sale Conditions, please refer to Appendix C in this document.

Settlement Date

Category T – Type M, N, O, P, Q, R

Eight bytes, numeric in the format YYYYMMDD. This field represents the reported date that the trade will settle.

<u>Side</u>

Category T – Type M, N, O, P, Q, R

One byte, alphabetic. This field identifies the side (i.e., Buy or Sell) from the reporting party's perspective. Only one side of an Inter-dealer transaction is disseminated, which will be identified as the sell side from the reporting party's perspective. Space-filled on ABS and CMO trades. Associated values are as follows:

Code	Value		
В	Reporting party bought from contra party		
S	Reporting party sold to contra party		

Special Price Indicator

Category T – Type M, N, O, P, Q, R

One byte, Alphanumeric. This field indicates the existence of a special trade condition that impacted the execution price, or if the transaction is a "specified trade." Associated values are:

Code	Value
Y	Special Price Trade
Space	Not a Special Price Trade

Field Descriptions

Sub-Product Type

Category T – Type M, N, O, P, Q, R

Category A – Type E, F, H

Five bytes, Alphanumeric. This field will identify the type of SP security traded. Associated values are:

Code	Value	
TBA	Agency Pass-Through and SBA- Backed Securities traded To Be Announced	
MBS	Agency Pass-Through and SBA- Backed Securities traded in specified pool transactions	
ABS	ABS securities that are backed by a variety of consumer, student and commercial credits	
СМО	Collateralized Mortgage Obligations i.e. Mortgage Loans, Certificates by project or construction loans, other type of assets derivatives of MBS	

Symbol

Category T – Type M, N, O, P, Q, R

Category A - Type E, H

Fourteen bytes, alphanumeric. This field will represent the security symbol as assigned by FINRA for TRACE trade reporting purposes.

<u>T</u>

Text

Category A – Type A

Variable length (1 to 300 bytes), alphanumeric including special characters. This free-form text field will be used to relate general administrative or market information to SPDS subscribers.

8.0 Securitized Products Trade Processing

This section provides general processing and display guidelines for SPDS data, including differences which affect MBS.

Background Information

SPDS will carry fixed income securitized products data reported by FINRA members via the TRACE system on a real-time basis between 8:00 and 18:30 ET. The SPDS data feed will carry price information for the following types of securitized products, categorized into Sub-Products:

Sub-Product Code	Security Type
TBA	Agency Pass-Through and SBA-Backed traded To Be Announced
MBS	Agency Pass-Through and SBA-Backed traded in specified pool transactions
ABS	certain asset-backed securities <i>e.g.</i> , collateralized by pools of credit card receivables, student loans, auto loans, etc.
СМО	Collateralized Mortgage Obligations i.e. Mortgage Loans, Certificates by project or construction loans, other type of assets derivatives of MBS, etc.

A complete list of Securitized Products securities (SP Security Master) is available daily through download via Web API. Please refer to the following link for more information:

 $\underline{http://www.finra.org/Industry/Compliance/MarketTransparency/TRACE/Documentation/index.ht}$ \underline{m}

The following types of transactions will not be disseminated via the SPDS data feed:

- Transactions in 144A (private placement) securities.
- Transactions of Corporate and Agency Debt securities.

FINRA requires that external redistributors of real-time SPDS data include the following fields on their display of disseminated transactions:

- Security Identifier (Symbol or CUSIP number or RDID if an MBS).
- Sub-Product Type.
- Price.
- Remuneration (if applicable).

Trade Processing

- Special Price Indicator (if applicable).
- Quantity.
- Sale Conditions.
- Execution Date/Time (may be separated into two fields).
- Side.
- Reporting Party Type.
- Contra Party Type.
- Settlement Date.
- Factor (Non-MBS only)

Provided that the market data vendor provides at least one display screen that adheres to this display requirement, FINRA will waive the requirement for any market minder, analytical, or ticker display screens.

Trade Processing

Security Identifier

The SPDS data feed includes three identifiers for each non-MBS, and one identifier for an MBS

- **Symbol:** FINRA will assign its own symbols for use by TRACE users. The TRACE symbol may be up to fourteen characters in length and will consist of a root symbol for the issuer plus a unique identifier code for each security. [Example: FNMA.SF045010K]
- **CUSIP:** A CUSIP number is a unique nine-character alphanumeric code assigned to a security by Standard & Poor's Corporation. The CUSIP is a universal identifier code that does <u>not</u> vary from market to market. As noted earlier, a firm must have a daily licensing agreement in place with Standard & Poor's to receive a direct SPDS data feed product.
- **BSYM:** The BSYM is the 12-byte alphanumeric code assigned by Bloomberg to the security.

• **RDID** – The RDID is a field which can be up to 25-bytes, and which can include special character assigned to the security by FINRA. This field will be populated on MBS transactions and administrative messages only. The table below illustrates the makeup of the RDID field.

Field Order	Name	Can be Null ('#' for null values)	Valid Range ('*' for out of range)	Possible Values	# of Bytes
1	Agency	No	M,F,G,S,N,T,R	M,F,G,S,N,T,R, U	1
2	Mortgage Product	Always # for SMBA	C, H, M, S, #	# , C, H, M, S	1
3	Amortization Type	No	A, B, G, H, L, T, W, R, V, Y, D	A, B, G, H, L, T, W, R, V, Y, D	1
4	Coupon	No	0 – 32.999999999999999999	00 – ZK	2
5	Original Maturity	No	0 – 3,290	00 – ZJ	2
6	WAC (updated)	Yes	0 – 32.999999	00 – ZK, ##, **	2
7	WAM (updated)	Yes	0 – 3,299	00 – ZK, ##, **	2
8	WALA (updated)	Yes	0 – 3,290	00 – ZJ, ##, **	2
9	Average Loan Size (updated)	Yes	0 – 3,299,999	00 – ZK, ##, **	2
10	LTV (original)	Yes	0 – 3,299	00 – ZK, ##, **	2

Note: FINRA members are required to report trades in exchange-listed securities to TRACE if the transaction was executed over the counter. The SPDS data feed will carry these trade transactions under the FINRA-assigned symbol (Non-MBS only). Market data vendors may wish to use the CUSIP number to reconcile their databases for such issues.

Price and Associated Indicators

FINRA will disseminate securitized product prices on SPDS in \$\$\$\$.dddddd format. For SPDS display purposes, FINRA recommends that the price should be shown at the same granularity as it was disseminated whenever possible. If a firm chooses to shorten the price field, FINRA recommends that they round (rather than truncate) prices. At a minimum, a firm should be prepared to display prices to three places to the right of the decimal point as this is how it appears on customer statements. As outlined in Section 7, FINRA will disseminate the field as 0000.000000 if no price is reported for an issue. For SPDS display purposes, the price field should be shown blank under this circumstance.

Transactions disseminated via SPDS will represent the price paid by the buyer <u>inclusive</u> of any and all markups, markdowns, or commissions. Within the SPDS trade message format, there are two toggle fields to indicate if the reported price reflects a broker commission and/or a special trading situation. For SPDS display purposes, the price <u>must</u> be shown with the commission and special price indicator if populated. FINRA recommends that the commission indicator be shown as a lower case "c" to the right of the price, and the Special Price indicator as an asterisk "*" right of the price.

Quantity

For trades of TBA securities, depending on whether the security is Good for Delivery (GD) or Not Good for Delivery (NGD), there are differences in the volume disseminated for each transaction. Each type has volume "cap" rules by which either actual volume for the respective transaction will be disseminated or a "cap" value will be disseminated. Trades in MBS and ABS also include a "cap" rule.

FINRA strongly recommends that the SPDS recipient indicate when the volume is actual versus estimated for each transaction. The breakdown of SPDS volume dissemination rules is as follows:

- TBA GD transactions reported with a volume of \$25,000,000.00 or less will be disseminated with the actual volume of the transaction. The Quantity Indicator value will be "A".
- TBA GD transactions reported with a volume greater than \$25,000,000.00 will be disseminated as 25MM+. The Quantity Indicator value will be "E".
- TBA NGD and SBA TBA transactions reported with a volume of \$10,000,000.00 or less will be disseminated with the actual volume of the transaction. The Quantity Indicator value will be "A".
- TBA NGD and SBA TBA transactions reported with a volume greater than \$10,000,000.00 will be disseminated as 10MM+. The Quantity Indicator value will be "E".
- MBS transactions reported with a volume of \$10,000,000.00 or less will be disseminated with the actual volume of the transaction. The Quantity Indicator value will be "A".
- MBS transactions reported with a volume greater than \$10,000,000.00 will be disseminated as 10MM+. The Quantity Indicator value will be "E".
- ABS transactions reported with a volume of \$10,000,000.00 or less will be disseminated with the actual volume of the transaction. The Quantity Indicator value will be "A".
- ABS transactions reported with a volume greater than \$10,000,000.00 will be disseminated as 10MM+. The Quantity Indicator value will be "E".
- CMO transactions reported with a volume of \$999,999.99 or less will be disseminated with the actual volume of the transaction. The Quantity Indicator value will be "A".

Trade Processing

As/Of Indicator

FINRA allows its members to report trades and trade reversals on an "As/Of" basis. In the As/Of Indicator field in the SPDS message format, regular As/Of trades are denoted by a value of A. Display of the As/Of indicator is optional. If the As/Of indicator is included in SPDS displays, FINRA recommends that the As/Of indicator be shown as "A/O" and should be displayed to the left of the price.

If the trade is an As/Of transaction, the Execution Date/Time field in the SPDS message will be populated with the actual trade date and time of the original transaction. While FINRA recommends that firms should show both the Execution Date and Execution Time for all transactions, it realizes that external redistributors may have limited screen space. If a firm chooses to show only one date/time field, it should display the Execution Time for current day transactions but the Execution Date for As/Of transactions.

Trade Modifiers

FINRA members will also report if any of the following trade modifiers apply to the trade transaction:

Trade Modifier 3

Code	Value		
Z	Reported Late (Out of Sequence)		
U	Reported Late after market hours		
T	Reported after market hours		
Space	No Modifier Applicable		

Trade Modifier 4

Code	Value		
Space	Regular Trade		
О	Specified Pool Transaction		
N	Stipulation Transaction		
D	Dollar Roll w/o Stipulation		
L	Stipulated Dollar Roll		
W	Weighted Average Price		

Please refer to the Appendix B – Glossary of Terms for a description of each modifier. For SPDS display purposes, the sale condition modifiers must be shown, preferably as separate field(s) on a security display.

Price Change Indicator

In Appendix C of this document, FINRA has outlined its logic for updating the high, low, and last sale prices for securitized products. Since there are a number of sale conditions modifiers and indicators that must be considered in the calculation, FINRA also includes a Price Change Indicator field in the SPDS message format. As outlined in Section 7, the possible values for the Price Change Indicator field are as follows:

Code	Values		
0	No Price Changed		
1	Last Price Changed		
2	Low Price Changed		
3	Last Price and Low Price Changed		
4	High Price Changed		
5	Last Price and High Price Changed		
6	High Price and Low Price Changed		
7	All Prices Changed		

In the Trade Report (Category T – Type M, Category T – Type P) format, the Price Change Indicator field appears as the last field in the message. Depending on the value in the Price Change Indicator field, the firm should use the Price and values contained in the trade report message to update its high, low, and/or last sale fields for the issue.

In the Trade Cancel (Category T – Type N, Category T – Type Q) and Trade Correction (Category T – Type Q), Category T – Type Q) formats, the Price Change Indicator appears as the last field in the Summary Information section of the message. Depending on the value in the Price Change Indicator field, the firm should use the appropriate price value(s) from the Summary Information to update its high, low, and/or last sale display.

Side

Side indicates whether the transaction is a buy or sell. Only the sell side of an inter-dealer (broker-dealer to broker-dealer) transaction is disseminated. For SPDS display purposes, FINRA requires that the Side be shown and recommends using the same values provided in the SPDS message (note that for ABS and CMO trades, SPDS will not disseminate the Side).

Reporting Party Type

Reporting Party Type indicates what type of entity reported the trade. In the SPDS trade messages, the reporting entity will be either a broker-dealer identified by the value "D" or an Alternative Trading System (ATS) identified by the value "T". For SPDS display purposes, FINRA requires that the Reporting Party Type be shown and recommends using the same values

provided in the SPDS message (note that for ABS and CMO trades, SPDS will not disseminate the Reporting Party Type).

Contra Party Type

Contra Party Type indicates whether the contra party of the transaction is a broker-dealer, a customer, an affiliate or an ATS. In the SPDS trade messages, broker-dealer contra trades are identified by the value "D", customer contra trades are identified by the value "C", affiliate contra trades are identified by the value "T". An affiliate is a non-member entity that controls, is controlled by or is under common control with a FINRA member, as further defined under FINRA Rule 6710. For SPDS display purposes, FINRA requires that the Contra Party Type be shown and recommends using the same values provided in the SPDS message (note that for ABS and CMO trades, SPDS will not disseminate the Contra Party Type).

Trade Cancel and Correction Processing

FINRA allows its member firms to correct or cancel trades reported earlier in the current business day, or as far back as 20 business days. As outlined in section 5 of this document, the Trade Cancel (Category T – Type N, Category T – Type Q) and Trade Correction (Category T – Type O, Category T – Type R) formats reference the original trade transaction via the message label and original trade information portions of the message. In addition, FINRA will include the adjusted daily high, low, and last sale prices as part of the Summary Information portion of these SPDS message formats between 08:00 and 17:15. Cancels of trades submitted prior to the rolling 20 business day period are identified as Reversals (As Of Indicator = R).

Display Guidelines for Trade Cancellations

Upon receipt of a Trade Cancel (Category T- Type N, Category T – Type Q) message, SPDS recipients should take the following steps:

- 1) Locate the original trade report entry using the SPDS Original Trade Identifier. For prior day trade reports, also use the Original Dissemination Date.
- 2) Modify the original trade report entry by adding a cancellation indicator. FINRA recommends that firms display the letter "X" to the left of the trade price to reflect a cancellation.
- 3) Update the daily high, low, and last sale prices as necessary. See the Price Change Indicator processing rules above.

Display Guidelines for Trade Corrections

Upon receipt of a Trade Correction (Category T – Type O, Category T- Type R) message, SPDS recipients should take the following steps:

- 1) Locate the original trade report entry using the SPDS Original Trade Identifier. For prior day trade reports, also use the Original Dissemination Date.
- 2) Modify the original trade report in the following manner:

Trade Processing

- a) Replace the original trade with the new data in the Corrected Trade Information portion of the message.
- b) Add a correction indicator to the trade record. FINRA recommends that firms display "C" to the left of the new trade price to reflect a correction transaction.
- 3) Update the daily high, low, and last sale prices as necessary. See the Price Change Indicator processing rules above.

Please refer to Appendix D for the complete list of FINRA-recommended display standards.

Administrative Message Processing

9.0 Administrative Message Processing Guidelines

This section outlines the processing guidelines for administrative messages on the SPDS. In its initial release, FINRA will support two types of administrative messages: Trade Summary Recaps and Trading Halts.

In a future release, FINRA plans to introduce General Administrative and Issue Maintenance message format for SPDS subscribers. In the initial release, however, SPDS subscribers should process the Daily List file available on the TRACE website for security additions, deletions, and modifications.

Daily Trade Summary

At approximately 17:20, FINRA will generate and disseminate a trade summary report. This SPDS Trade Summary report will include the high, low, and closing price for those issues with trading volume for the current business day. If a security did not have any volume for the day, it will <u>not</u> be included in that day's closing report.¹

Please note that FINRA members may enter trade reports, cancels, and corrections into the TRACE system until 18:30; however, entries made after 17:15 will <u>not</u> impact the high, low, or closing price for the day.

Trading Halts

FINRA reserves the right to halt trading in a security by its members as material news is released. When a trading halt is instituted or removed, FINRA will disseminate a trading halt message on SPDS to notify traders and investors. This SPDS message will include the FINRA-assigned symbol, CUSIP number, sub-product type, halt reason, action date and time. **SPDS recipients** <u>must</u> <u>display</u> a "held" indicator whenever an issue is subject to a trading halt situation.

In the initial SPDS release, FINRA will only disseminate a trading halt message at the time of an action change. Since trading halt situations can span multiple days, SPDS recipients must retain trading halt status information from day to day.²

¹ As/of trades and Reversals will not be reflected in the SPDS Closing Recap Report.

² At the onset of service, SPDS vendors may request a file of current trading halt information from which to build their database. Requests should be sent via e-mail to TRACEDataServices@finra.org.

Control Message Processing

10.0 Control Message Processing Guidelines

The following Control Messages will be transmitted by SPDS:

Category	Туре	Description
C	I	Start of Day
С	J	End of Day
С	0	Market Session Open
С	C	Market Session Closed
C	X	End of Trade Session
C	Z	End of Transmissions

Control Message Descriptions

A Control message is a fixed format message that performs a specific system function. All SPDS Control Messages consist of a Standard Message Header only. The Message Type field will contain the appropriate single ASCII character that identifies the Control Message type.

Control Message Processing

Start Of Day

Category C – Type I

The Start of Day Control Message signifies the beginning of FINRA's daily operational cycle. The message will be sent at the beginning of each day. The purpose of this message is to inform SPDS recipients that all subsequent data transmitted with be real-time updates and should be treated accordingly.

End Of Day

Category C – Type J

The End of Day Control Message signals the end of activity for the operational cycle.

Market Session Open

Category C – Type O

The Market Session Open Control Message signifies the opening of the market for the session indicated in the Message Header.

Market Session Close

Category C – Type C

The Market Session Close Control Message signals the closing of the market for the session indicated in the Message Header.

End of Trade Session

Category C – Type X

The End of Trade Session Control Message signals that no further trade reports or corrections (other than retransmissions) will be sent for that market session.

End of Transmissions

Category C – Type Z

The End of Transmissions Control Message signals that there will be no further transmissions of data. The End of Transmissions message will be transmitted at the end of the operational day.

Appendix A

11.0 Format Release & Testing Guidelines

Release Notification

To keep pace with the changing business environment, FINRA may modify its data feed format specifications for direct data feed customers. In advance of each release, FINRA will notify its direct connect customers of the format change by posting a notice on the FINRA website. In the notice, FINRA will outline the scope of the changes as well as the testing and release schedule. Direct connect customers are required to modify and test their code based on these technical notices.

Types of Testing

In advance of each release, FINRA will offer test data for its direct data feed customers to be used for quality assurance (QA) purposes. Depending on the scope of the changes, the testing period will range from one day to one month. For its data feed customers, FINRA offers the following types of testing opportunities:

NTF test transmissions: In advance of major releases, FINRA will transmit real time data from the NTF (NASDAQ Test Facility). As market participants enter transactions into the NTF environment, FINRA will broadcast this test data in the new data formats to direct data feed subscribers only, via the NTF IP/Port.

Evening test transmissions: For its evening testing opportunities, FINRA may create sample messages in the new formats to be broadcast on select weeknights from 21:05 to 22:30. To generate the sample data, a test script will be used to exercise the full range of values for the affected message formats. The evening test data for the SPDS feed will be disseminated via a dedicated test port and IP Addresses, which are different from the SPDS production port and IP Addresses.

Saturday production tests: In advance of major releases, FINRA will conduct user acceptance tests on select Saturdays for its market participants. As market participants enter information into its production systems, FINRA will broadcast this test data in the new data formats to direct data feed subscribers only.

FINRA strongly recommends that <u>all</u> direct subscribers use these testing opportunities to check their hardware and software applications. During the testing phase, FINRA may ask market data vendors or market participants to provide status updates as part of the QA process.

Identification of test data

During market hours, FINRA will identify test data transmitted via the Production IP/Port.:

Test Symbols: FINRA may also send out intra-day test data using special issue symbols on its data feeds.

During non-system hours, FINRA may broadcast <u>unmarked</u> test data on its SPDS feeds. Customers should take necessary precautions to protect their systems against database corruption during weekends and market holidays. Please refer to the Appendix B of this document for the current data feed transmission schedule.

Appendix A Appendix A – Glossary of Terms

Term	Definition
As/of trade	A transaction that was reported by a FINRA member on a date later than the actual transaction date. For SP trades, FINRA members are allowed to enter the trade date for an as/of as far back as May 16, 2011.
Asset-Backed Security	A security collateralized by any type of financial asset, such as a loan, a lease, a mortgage, or a secured or unsecured receivable, and includes but is not limited to an asset-backed security as defined in Section 3(a)(77)(A) of the Exchange Act, a synthetic asset-backed security, and any residual tranche or interest of any security specified above, which tranche or interest is a debt security for purposes of Rule 6710(a) and the Rule 6700 Series.
Collateralized Mortgage Obligations (CMOs)	As defined in FINRA Rule 6710(dd), a type of Securitized Product backed by Agency PassThrough Mortgage-Backed Securities as defined in paragraph (v), mortgage loans, certificates backed by project loans or construction loans, other types of mortgage-backed securities or assets derivative of mortgage-backed securities, structured in multiple classes or tranches with each class or tranche entitled to receive distributions of principal and/or interest according to the requirements adopted for the specific class or tranche, and includes a real estate mortgage investment conduit ("REMIC").
Commission	Fees paid to a broker for executing a trade based on the number of bonds traded or the dollar amount of the trade.
CUSIP number	CUSIP stands for the Council on Uniform Securities Identification Procedures. A CUSIP number is a unique nine-character alpha/numeric code appearing on the face of each stock or bond certificate that is assigned to a security by Standard & Poor's Corporation. The number is used to expedite clearance and settlement.
Dollar Roll	A simultaneous sale and purchase of an Agency Pass-Through Mortgage-Backed Security for different settlement dates, where the initial seller agrees to take delivery, upon settlement of the re-purchase transaction, of the same or substantially similar securities.
External redistributor	A firm that resells market data to third party customers. Also known as a market data vendor.
Face value	The value that appears on the front, or face, of a bond, which represents the amount the issuer promises to repay at maturity. Also known as principal amount.
Factor	The decimal value representing the proportion of the outstanding principal value or remaining face amount of a pool of assets underlying a security to the original principal value or original face amount of such assets.
Institutional investor	A bank, mutual fund, pension fund, or other corporate entity that trades securities in large volumes.
Internal redistributor	A firm that provides a market data display to its employees only.
Issuer	A corporation that has distributed to the public securities registered with the Securities and Exchange Commission. Can also be a government-sponsored enterprise or agency that issues a security.

Appendix A

Term	Definition	
Markup and Markdown	A markdown is a charge subtracted from the price of a security that a customer is selling to a dealer/broker for the broker/dealer's own account. A markup is the charge added to the price of a security that a customer is buying from a dealer/broker from the broker/dealer's own account. The markdown or markup is the equivalent of a commission on the sale.	
Material News	News released by a public company that might reasonably be expected to affect the value of a company's securities or influence investors' decisions. Material news includes information regarding corporate event of an unusual or non-recurring nature, news of tender offers, and unusually good or bad earning reports.	
Maturity date	The date on which the principal amount of a bond is to be paid in full.	
Mortgage-Backed Security (MBS)	A type of asset-backed security that is collateralized by a mortgage or collection of mortgages.	
Over-the-counter market (OTC)	A securities market that is conducted by dealers throughout the country through negotiation of price rather than through the use of an auction system as represented by a stock exchange.	
Private placement	A large block of securities offered for sale to an institutional investor or a financial institution through private negotiations. Transactions in private placement securities are restricted under SEC Rule 144.	
RDID (Reference Data Identifier)	The field used to identify the security in an MBS transaction or administrative message. This field is made up of data components that factor into the identifier for the associated security.	
Remaining Principal Balance	Remaining Principal Balance or "RPB" means, for an Asset-Backed Security backed by a pool of mortgages or other assets that are self-amortizing, the total unpaid principal balance of all such mortgages, or the equivalent remaining value of such self-amortizing assets held in the asset pool, at a specific time, such as the Time of Execution.	
Reversal	A trade cancellation entered into TRACE on an As/of basis for an execution greater than the past twenty business days.	
Secondary market	Markets where securities are bought and sold subsequent to original issuance.	
Settlement date	The date for the delivery of securities and payment of funds.	
Sold late	A sale condition to indicate that the trade was reported during current business hours but outside of the mandatory reporting interval outlined in FINRA Rule 6730.	
Special Price Indicator	This field denotes trades that were consummated contrary to the current standard convention for the particular bond. Also known as "specified trades", e.g., when a debt security that conventionally and in the current market is traded at a price that reflects a due bill or warrant is, in the transaction to be reported, traded as specified without the due bill or warrant. Note that a trade identified with a "Special Price Indicator" will not be incorporated in the calculation of the day's high, low and last price for the security.	

Appendix A

Term	Definition
Specified Pool Transaction	A transaction in an Agency Pass-Through Mortgage-Backed Security requiring the delivery at settlement of one or more pools of mortgages that, at the Time of Execution, are identified by their unique pool identification numbers and original principal value.
Stipulation Transaction	A transaction in an Agency Pass-Through Mortgage-Backed Security where, at the Time of Execution, the parties agree that the seller will deliver to the buyer an Agency Pass-Through Mortgage-Backed Security of a specified face amount and coupon from a specified Agency or Government-Sponsored Enterprise program that represents a pool (or pools) of mortgages, at a specified price, and the parties stipulate that the pool or pools to be delivered meet certain conditions.
ТВА	"TBA" means "to be announced" and refers to a transaction in an Agency Pass-Through Mortgage-Backed Security as defined in paragraph (v) where the parties agree that the seller will deliver to the buyer an Agency Pass-Through Mortgage-Backed Security of a specified face amount and coupon from a specified Agency or Government-Sponsored Enterprise program representing a pool (or pools) of mortgages (that are not specified by unique pool number), and includes TBA transactions "for good delivery" ("GD") and TBA transactions "not for good delivery" ("NGD").
TRACE	Under FINRA Rule 6730, FINRA members are required to report transactions in eligible securitized products to FINRA. The Trade Reporting and Compliance Engine (TRACE) is the FINRA-developed vehicle that facilitates the mandatory trade reporting of corporate bonds and public dissemination of market data. FINRA Rule 6730 requires the reporting of securitized product trades.
Weighted average price	A transaction where the price is determined by a weighted average of the prices of prior related transactions. Note that a trade identified with a weighted average price sale condition will <u>not</u> be incorporated in the calculation of the day's high, low and last price for the security.

Appendix B

Appendix B – Schedule of Transmissions

Note: All times referenced regarding the SPDS feed are approximate and are stated in US Eastern Time. This schedule is based on a normal day. FINRA reserves the right to alter this schedule with minimal advance notice.

Time	Transmission	Message Category	Message Type
07:30	Start of Day Control Message	С	I
08:00	US Market Session Open Message	С	0
08:00 - 18:30	Trade Report, Cancel, and Correction Messages	Т	M
		T	N
		T	О
		T	P
		T	Q
		T	R
17:15	US Market Session Closed Message	С	С
17:20	Trade Summary Recap Messages	A	Е
		A	F
19:05	End of Trade Session Control Message	С	X
19:08	End of Day Control Message	С	J
19:14	End of Transmissions Control Message (Time is approximate; delayed when retransmission's still active)	С	Z

Appendix C

Appendix C – Sale Condition Matrix

FINRA will use the Change Indicator field in the Trade Report, Trade Cancel, and Trade Correction message formats to notify SPDS recipients which price fields to update based on the trade report. The Change Indicator field will be populated based on the following logic:

- **As/Of Indicator:** Current day trades will impact the high, low, and last sale prices and yields. Only update high, low, and/or last sale price fields if the As/Of Indicator field is blank (current day trade).
- **Special Price Indicator:** Only trade prices within the normal trading range for a securitized product will be used to calculate the price summary for an issue. Only update the high, low, and/or last sale price if the Special Price Indictor field is blank.

After factoring out As/of and special price trades, the TRACE system will then filter trades based on the Trade Modifier fields. The following Modifier Decision Matrix should be used to determine whether the "High," "Low," and "Last," information is updated upon receipt of an individual trade report.

Modifier	Condition	Update High/Low	Update Last ³
	Regular Sale	Yes	Yes
Т	Reported After Market Hours	No	No
Z	Sold Late (Out of Sequence)	Yes	Yes
U	Reported Late After Market Hours	No	No
W	Weighted Average Price	No	No
0	Specified Pool Transaction	Yes	Yes
N	Stipulation Transaction	No	No
D	Dollar Roll w/o Stipulation	No	No
L	Stipulated Dollar Roll	No	No

³ The SPDS last sale price calculation algorithm includes an execution time factor. FINRA will only update the last sale price if the execution time in the current SPDS message format is equal to or greater than the previous trade report message that was disseminated.

Appendix D

Appendix D – FINRA Display Guidelines for SPDS Data Elements

FINRA has outlined its display requirements for external real-time distributors of SPDS in Section 8 of this document. This table summarizes the recommended display value and placement for the required fields.

Data Element	Recommended Display Value	Recommended Data Placement
Bond Symbol or CUSIP or RDID	As disseminated.	Separate display field.
Sub-product Type	As disseminated	Separate display field.
Quantity Indicator	"Est" if estimated. Blank otherwise.	Indicator to the right of the Quantity field when applicable.
Quantity	As disseminated.	Separate display field.
Price	As disseminated or rounded to 3 decimal places.	Separate display field.
Factor	As disseminated.	Separate display field.
Side	As disseminated.	Separate display field.
Reporting Party Type	As disseminated.	Separate display field.
Contra Party Type	As disseminated.	Separate display field.
Remuneration	Lower case "c", "m" or "n". Blank otherwise.	Indicator to the right of the price when applicable.
As/Of Indicator ⁴	"A/O" for As/of transactions	Indicator to the left of the price field when applicable.
Date/Time	Execution time if current day transaction. Execution date if As/Of trade or reversal.	Separate display field.
Trade Modifiers ⁵	As disseminated.	Separate display fields. Modifiers 1 and 2 are not used for securitized products.
Special Price Indicator	Asterisk (*)	Indicator to the right of the price when applicable.
Settlement Date	As disseminated.	Separate display field.
Correction Indicators ⁶	"C" for Corrections. "X" for Cancellations.	Indicator to the left of the price field when applicable.

 $^{^{\}rm 4}$ External redistributors are required to show the reversal indicator. As/Of indicator is optional.

⁵ Each SPDS message contains four modifier fields: Trade Modifier 1 and Trade Modifier 2 are not used for securitized products.

⁶ Indicator should be shown next to the original transaction if a Trade Cancel or Trade Correction was subsequently disseminated on SPDS.

Appendix E

Appendix E - Connectivity

An active Vendor Agreement is required to receive a TRACE real-time data feed, including the SPDS feed (the Vendor Agreement can be found at http://www.finra.org/Industry/ContentLicensing/TRACE, "Vendor/ Subscriber Agreement Information").

If you have any questions, please contact TRACE Data Services at (888) 507-3665.

Connection Options:

Connectivity to NASDAQ datacenters is required either through an authorized Extranet Provider or through a Direct Circuit connection.

Option	Contact	Other instructions
Direct Connection to NASDAQ	TRACE Data Services; TRACEDataServices@finra.org	Click on the following link for a list of current local access carriers that can provide Direct Circuit connectivity http://www.nasdaqtrader.com/content/ProductsServices/Trading/Direct_connect_providers.pdf
Connection via a new/additional Extranet provider	Contact the network provider to discuss the communication costs/details and Send an email to TRACE Data Services at TRACEDataServices@finra.org requesting access to ATDS via desired network provider.	Click on the following link for list of current Extranet providers http://www.nasdaqtrader.com/content/ProductsServices/Trading/extranets.pdf

Once approval takes place FINRA will issue an approval letter notifying the indicated network provider.

Please email <u>FINRA Client and System Management</u> for questions regarding the SPDS message layouts or the TRACE application.

Appendix F

Appendix F – Document Revision Log

The initial version of the Securitized Products Dissemination Service (SPDS) specifications was published on June 20, 2012. The following table lists the changes to the document to date.

Modification Date	Description of Change
06-20-2012	First published version.
8-27-2012	Updated specs with Production IP Multicast Address and Source and Destination Port Numbers Section 3.2
	Replaced 12-byte "Future Use" field with BSYM (Bloomberg Symbol) to Transaction and Administrative messages Sections 5.1.1, 5.1.2, 5.1.3, 5.2.1, and 5.2.2.
	Added BSYM to Field Occurrences and Field Descriptions Sections 6 and 7.
	Added BSYM as Bond Identifier Section 8.2.1.
	Added BSYM to Test Cycle Messages Appendix F.
11-19-2012	Modified contact point explanations for connectivity options. NASDAQ OMX Operations should not be called as first step for direct connection option. Appendix G.
03-25-2013	Updated SPDS specification with changes initiated with the introduction of MBS dissemination:
	Section: 1.1 – Introduction of the dissemination of MBS securities and usage of RDID field 4.2 – New trade report, cancel trade report, correction trade report message types added for MBS transactions. New administrative messages added for MBS. 5.1.2 – MBS Trade Report format, Category T – Type J 5.1.4 – MBS Cancel Trade Report format, Category T – Type K 5.1.6 – MBS Correction Trade Report format, Category T – Type L 5.2.2 – MBS Daily Trade Summary format, Category A, Type F 6.0 – Field Occurrences for data included in new message types 7.0 – Field Descriptions for data included in new message types 8.0 – Data processing for MBS securities and RDID field usage Appendix A – Added RDID definition Appendix B – Include new message types in schedule of transmissions
	Date 06-20-2012 8-27-2012 11-19-2012

Appendix F

Version	Modification Date	Description of Change
		Appendix D – Added RDID to display guidelines statement
1.4	06-17-2013	8.2.1 – Security identifiers (RDID) Mortgage Product – Added "H" – Home Improvement Loans; added "#" – SBA, Unknown. Deleted B, D, L, N, P, U Agency – Added "N" – GNM2; added "T" – Test Amortization Type – Added "Y" – Buy Down; added "D" – Discount
1.5	12-16-2013	8.2.1 – Security identifiers (RDID) Agency – Added "R" – Ginnie1 – Serial Notes (Puerto Rico)
2.0	12-29-2014	Changes to support dissemination of trades under the ABS sub product. Replaced Message Types G, H, I, J, K and L with Types M, N, O, P, Q and R respectively. With the new message layouts, the Commission Indicator and Reporting Party Side were eliminated and new fields Side, Reporting Party Type, Contra Party Type and Remuneration Indicator are introduced. Display guidelines revised accordingly.
2.1	1-12-2015	Removed Remuneration Indicator and restored Commission Indicator in its place. Removed value identifying ATS trades from the Reporting Party Type field and removed values identifying ATS and Affiliate trades from the Contra Party Type field.
2.2	3-2-2015	Removed references to April 27th 2015 as the release date for the new Message Types M, N, O, P, Q and R.
2.3	5-18-2015	Expanded Contra Party Type in Section 7 to include new value "A" for affiliate trades and defined affiliates in Section 8.2.9.
2.4	12-9-2015	Retired use of Commission Indicator and replaced with Remuneration on Trade, Cancel and Correction messages. Introduced ATS Indicator (using previous Future Use byte) on Trade, Cancel and Correction messages. Introduced value "T" to Reporting Party Type and Contra Party Type fields to identify an ATS on Trade, Cancel and Correction messages.
2.5	10-15-2016	Changes to support dissemination of trades (where qty < 1 Million) under the new CMO sub product. Category T - Types M, N, O Category A - Types E, H
2.6	3-28-2018	Times for evening test data amended. Evening test data will be broadcast via its own port and IP Address.
2.6A	5-14-2018	Clarified End of Transmissions (Category C – Type Z) statement in section 10.9 regarding messages produced after the End of Transmissions.
2.7	2-16-2022	Changed to new FINRA logo.

Appendix F

Version	Modification Date	Description of Change
2.8	12-20-2023	Added value of "U" (UMBS) for RDID Issuing Agency
MOLD/ UDP 2.1	11-19-2024	Original MOLD/UDP version.