



Specifications for Real-time Reporting of Municipal Securities Transactions

Version 1.1

Municipal Securities Rulemaking Board
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PREFACE

Interactive Messaging for Real-time Reporting of Municipal Securities Transactions

This document provides an overview of interactive messaging to be used with the Municipal Securities Rulemaking Board's (MSRB) Real-time Transaction Reporting System (RTRS). Its main purpose is to provide the required detailed input and output specifications for messages that will be used to support regulatory reporting.

As previously announced, the MSRB is going forward with its plan for a real-time transaction reporting system and is planning to make the system operational in mid-2004.¹ Once the real-time Transaction Reporting System (RTRS) is operational, dealers will be required by Rule G-14, on transaction reporting, to submit transaction data to the MSRB within 15 minutes of the time of trade. Transaction prices will be electronically disseminated immediately after transactions are received by the MSRB and automated error checking is completed.² This effectively will provide, for the first time, "real-time" reporting of transaction prices in the municipal securities market.

The operational plan with the specific procedures for transaction reporting, including trade reporting formats and other technical requirements, has been published in the Operational Overview of RTRS³. The procedures and implementation plan for real-time transaction reporting have been coordinated with the new real-time comparison system for municipal and corporate bonds (the "Real-Time Trade Matching" or "RTTM" system) now being implemented by National Securities Clearing Corporation (NSCC).⁴ The use of NSCC telecommunication facilities as data collection points or "portals" for transaction data and the use of a standard common format for trade reporting and automated comparison through NSCC are intended to reduce dealer costs in complying with the 15-minute transaction reporting requirement.

Under the plan for real-time transaction reporting, MSRB Rule G-12(f), which currently requires dealers to use an automated comparison facility provided by a registered securities clearing agency for inter-dealer transactions, would continue to apply after RTTM is implemented. However, the rule would be amended to reflect that transactions must be submitted to the system within 15 minutes of the time of trade to take advantage of the real-time comparison capabilities of the new RTTM system and to serve the function of real-time regulatory transaction reporting. The same trade report made by a dealer will function both for transaction reporting under Rule G-14 and for comparison under Rule G-12(f). Retail and institutional customer transactions and certain inter-dealer agency transactions described herein also will be reported through the NSCC portals using the same record format as used for inter-dealer trades. NSCC will not process customer transactions in the comparison system, but will forward the data to the MSRB and thus

¹ See "Plans for MSRB's Real-Time Transaction Reporting System," MSRB Notice 2003-3 dated February 3, 2003, on www.msrb.org.

² Once a dealer has successfully submitted trade information to a portal designated for receipt of the data, the error checking and dissemination process should take no more than a few minutes.

³ See "Operational Overview of MSRB's Real-Time Transaction Reporting System," MSRB Notice 2003-13 dated April 7, 2003, on www.msrb.org.

⁴ NSCC is a clearing agency registered under the Securities Exchange Act.

allow dealers to avoid setting up separate telecommunications links and facilities specifically for trade reporting to the MSRB.⁵

Coordination with Real-time Comparison

The current focus on moving to “straight through processing” of securities transactions provides the best possible environment to make the conversion to real-time transaction reporting.⁶ In particular, RTTM, the real-time comparison system being implemented by NSCC in the fourth quarter of 2003, will provide a means for dealers to leverage their systems development work to satisfy two goals at once – that of real-time transaction reporting and real-time comparison of inter-dealer transactions. In this regard, the development plans for both systems have been coordinated to provide the greatest efficiencies possible for dealers. Rule G-12(f), as amended, will require that dealers utilize RTTM by submitting inter-dealer transactions within 15 minutes of the time of trade. This allows a single trade report to satisfy both trade reporting and comparison purposes.

Improved Functionality

The objective of real-time transaction reporting is to make price and volume information publicly available as soon as possible after trades are effected. Real-time reporting will also bring improved functionality to dealers and enforcement agencies, compared with the current batch-oriented reporting system. These improvements include:

- The ability for a dealer to ensure the accuracy of regulatory information such as the time of trade, even when that information is reported on its behalf by a clearing broker;
- The capability for dealers to report their capacity as agent in inter-dealer trades; and
- Improvements in the “audit trail” of trade information.

Submission of Transaction Reports by Intermediaries

As in the current transaction reporting system, a dealer will be able to use an intermediary, *i.e.*, its clearing broker or service bureau, to submit transaction reports to RTRS. Also following current policies, inter-dealer transaction reporting and comparison will be accomplished using one transaction report. The MSRB expects those dealers that are not self-clearing to submit inter-dealer trades through their clearing broker as they do today. However, these dealers should now ensure that the clearing broker will be able to submit the trade report satisfying both comparison and transaction reporting requirements within 15 minutes of the time of trade. Both dealers in this case will have the responsibility to work together to ensure that such trade submissions are timely and accurate. Clearing brokers and their correspondents also should discuss at this time how customer trade reporting will be handled for the correspondents. It will be possible for either the correspondent to submit directly to the MSRB or for the clearing broker to submit on its behalf. Similarly, dealers using service bureaus as intermediaries, either for inter-dealer or customer trade reporting,

⁵ By agreement with the MSRB, NSCC will not charge dealers for serving as the portal for customer transaction data, but MSRB will reimburse NSCC for any system costs that are attributable exclusively to this function.

⁶ See, *e.g.*, “SIA Board Endorses Program to Modernize Clearing, Settlement Process for Securities,” SIA Press Release dated July 18, 2002, on www.sia.com.

should talk with the service bureaus at this time to ensure that they will be ready to submit trades within 15 minutes.

Message-Based versus Web Submission of Trade Data

The MSRB is aware that many dealers may need to undertake a substantial amount of systems work over the next year to integrate real-time transaction reporting and comparison into their existing processing systems and procedures. The extent of work that will be required depends in part upon the real-time reporting method chosen by the individual dealer. Two options will be available: 1) message-based trade input, and 2) Web-based trade input. In using the message-based method of trade reporting, the dealer sends electronic messages containing trade data to the NSCC “Access Network” and receives interactive feedback, also as messages. As noted, NSCC acts as a portal, relaying the messages to and from the MSRB’s RTRS. In using the web-based method, the dealer accesses the RTTM Web site through an Internet browser to enter trade data and send it to the NSCC network. Dealers may use either or both methods. Both procedures are described in the Operational Overview with additional detail provided in the RTRS Message Specifications for trade reporting and the RTTM Message Specifications for real-time comparison.⁷

In essence, the message-based method is designed to allow a submitter to interface with RTRS and RTTM using its existing automated transaction processing systems. This allows dealers to avoid manual and duplicative data entry and to ensure that transaction reports are consistent with their internal trade records. The web-based trade submission method requires no system development work beyond an Internet connection and the need to obtain access to the system from NSCC. However, web input is manual and it will not be possible to interface the web-based method with the dealer’s processing system. Therefore, exclusive use of the web-based method for submitting transactions generally will be appropriate only for relatively low-volume submitters.

For high-volume submitters of transaction data, such as large dealers, clearing brokers and service bureaus, the only efficient and practical means for trade submission is likely to be message-based. The extent of systems work necessary for interfacing with RTRS (and with RTTM) in this case will be dependent in large part on whether the submitter currently captures trade data in real-time for processing. Submitters that have prepared for real-time transaction reporting and comparison by converting from overnight batch processing systems to ones with a more real-time or “straight-through” processing approach should find the necessary systems changes comparatively minor. The decision by MSRB and NSCC to use standard, non-proprietary, message formats and to implement systems in a coordinated manner is intended to reduce the development work that will be necessary for submitters.

Audience

This document was written for systems and development personnel, including managers, analysts and programmers. It is intended for brokers, dealers and municipal securities dealers that effect transactions in municipal securities (“dealers”) and for other parties that submit transaction data for reporting purposes. Dealers are categorized as participants of NSCC (“participants”), dealers that are not NSCC participants

⁷ See “Operational Overview of MSRB’s Real-Time Transaction Reporting System,” MSRB Notice 2003-13 dated April 7, 2003, on www.msrb.org. For RTTM Message Specifications, see “Interactive Messaging: NSCC Participant Specifications for Matching Input and Output Version 1.0,” dated March 31, 2003 on www.ficc.com. This is referred to as the “FICC Specification.”

(“non-participants”), and vendors that support dealers.⁸ The document presumes readers are familiar with technical concepts and terms, and have a basic understanding of NSCC fixed income products and services.

In order to serve as a stand-alone document for non-participants and vendors, this Specification describes important features of the RTTM system as well as RTRS features. However, for a full and official RTTM Specification, see FICC’s *Interactive Messaging: NSCC Participant Specifications for Matching Input and Output, Version 1.0*.⁹ The FICC specifications govern data formats for regulatory use, as well as for automated comparison. The reader of this document should be familiar with the FICC Specification.

Related Materials

SWIFT

The specifications for interactive messages supporting trade matching are based on ISO15022 SWIFT messages. A high-level overview of how SWIFT messages are structured is included in [Section 2.2 of Interactive Message Guidelines](#). This section of the document provides readers with a general idea of how SWIFT messages are structured; it is not intended to replace SWIFT documentation in any way. **Readers are therefore strongly urged to refer to SWIFT user documentation to obtain a complete and comprehensive understanding of these message standards.** Resources include: the "SWIFT User Handbook", "Standards Release Guide 2002 (September 2002)", and "Category 5 Securities Markets Message Usage Guidelines (September 2000)". SWIFT information (including message formats) can also be found on the Internet at www.iso15022.org.

RTTM

In addition to the FICC Specification cited above, readers should refer to the documents on "Real-Time Trade Matching for NSCC-Eligible Fixed Income Securities: Business Overview (August 2001)", "Real-Time Trade Matching for NSCC-Eligible Fixed Income Securities: Business Requirements (July 2002)", "NSCC Real-Time Matching for Corporates, Municipals and UITs" (New Service Bulletin, May 30, 2003), and related documents (e.g., New Service Descriptions or NSCC Important Notices). These documents can also be found on the Internet at www.ficc.com, www.gscc.com, or www.nsc.com.

MSRB

For a description of planned rule changes regarding price reporting and comparison in real-time, see MSRB’s notice dated June 12, 2003, entitled “Request for Comment: Plan for Real-time Price Reporting.” For conceptual information on real-time transaction reporting see the “Operational Overview of the Real-Time Transaction Reporting System” on www.msrb.org.

⁸ In this document, in certain contexts NSCC participants are referred to as “clearing brokers” and non-participants are referred to as “correspondents.” “Service bureaus” are vendors that provide back-office support for dealers, have telecommunications connections with FICC, and are authorized by dealers to submit trade messages to the MSRB via the FICC Access Network.

⁹ The FICC Specification can be found on the Internet at www.ficc.com or www.nsc.com. This RTRS Specification includes some, but not all, sections of the FICC Specification..



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Revision History

Version	Date	Comments
1.0	June 2003	Initial publication
1.1	Sept 2003	Changes regarding: directing messages; notification of purge; “IDRO” literal; error messages; e-mail option; sender field; detailed changes/corrections

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1. INTRODUCTION TO REAL-TIME TRADE REPORTING

The MSRB's Real-time Transaction Reporting System (RTRS) includes both trades between dealers ("inter-dealer" or "street" trades) and trades between dealers and customers ("customer trades"). Sections 1.1 and 1.2 include information on business rules and procedures for reporting both types of trades. These sections are intended for all dealers.

Sections 1.3 through 1.5 focus on the submission of electronic trade messages via the NSCC's Access Network and reporting inter-dealer trades through NSCC's real-time comparison system, RTTM.¹⁰ These sections are intended primarily for NSCC participants. They may be of interest also to non-participants wishing to understand the flow of data in regulatory reporting of inter-dealer and customer trades.

1.1 Message-Based and Web-Based Data

Two options will be available for initial input or for modification: the submission of electronic messages in a standard format, and submission of data using the RTTM Web Interface. In the message-based method of trade reporting, the dealer sends electronic messages containing trade data to the NSCC "Access Network" and receives interactive feedback, also as messages. NSCC acts as a portal, relaying the messages to and from the MSRB's RTRS. In using the web-based method, the dealer accesses the RTTM Web site through an Internet browser to enter trade data and send it to the NSCC network. Dealers may use either method.

The Web Interface will also display trade details and the status of trades in the RTTM and RTRS systems. In so doing, it provides a feedback system that is an alternative to interactive messaging. The Web Interface will be viewable by participants and non-participants. A third output alternative, e-mail notification of regulatory errors found by RTRS, will also be available to participants and non-participants.

This document specifies how messages are to be constructed and used. The Web-based method is mentioned where necessary for the reader to understand the role of input alternatives to messaging, but the RTTM Web Interface is not specified here. Both FICC and the MSRB will publish documentation that describes the Web Interface more fully in the future.

1.2 Business Rules for Regulatory Reporting

This section specifies business rules for regulatory reporting under the MSRB's Rule G-14, covering: issues for which trades must be reported; requirements for reporting the dealer's trading capacity as principal or agent; and the reporting of trades done as agent for a customer by a correspondent dealer from its clearing broker's inventory.

¹⁰ This document uses the terms "comparison" and "matching" interchangeably. NSCC distinguishes the terms. See NSCC and GSCC's *Real-time Trade Matching (RTTM) for NSCC-Eligible Fixed Income Securities: Business Requirements* (July 2002), fn 7 at page 7.

1.2.1. Issues that Must be Reported

In the real-time environment, the Rule G-14 requirements will be unchanged regarding those issues for which trades must be reported. All customer trades in municipal securities issues that have CUSIP numbers assigned by the CUSIP Service Bureau of Standard & Poor's must be reported. Only issues The only exemption applies to (a) transactions in issues ineligible for CUSIP number assignment and (b) municipal fund securities.

For inter-dealer trades, transactions must be reported in all issues eligible for comparison in RTTM. In addition, Rule G-14 will require that the role of a clearing broker in RTTM-eligible agency transactions effected by an introducing broker against the principal positions of the clearing broker shall be reported (see below). If an issue is not RTTM-eligible (because of the lack of a CUSIP number for the security or other reasons), inter-dealer trades in the issue are not subject to the reporting requirement.¹¹

1.2.2. Trading Capacity

Principal and Agency Trades. In the real-time environment, Rule G-14 will continue to require a dealer reporting a customer transaction to report whether its capacity was as principal or as agent for the customer. This requirement will be extended from customer trades, to require the reporting of capacity in every inter-dealer transaction. Accordingly, dealers must report trades to RTRS as follows:

- Any trade against the dealer's principal position shall be reported as a "principal" transaction.
- Any trade that is not against the dealer's principal position, which is effected as agent for a customer, shall be reported as an "agency" transaction.

Inter-Dealer Regulatory-Only (IDRO) transaction. In RTRS, when an introducing broker effects a trade for a customer against the principal position of its clearing broker, there will be a requirement to report the role of the clearing broker, in addition to the requirement for the introducing broker to report the customer trade. The clearing broker will be required to report that securities were sold from (or purchased into) its principal account by the introducing broker. This "transaction" between the clearing and introducing brokers is not required to be submitted for comparison because it does not result in the movement of a principal position between dealers. Instead, it is termed an Inter-Dealer Regulatory-Only (IDRO) transaction.¹²

¹¹ It is the MSRB's understanding that all issues with CUSIP numbers assigned by Standard & Poor's are RTTM-eligible, except for when-issued short-term notes that pay interest at maturity and do not have a 30/360 day count method. Dealers should refer to NSCC for formal statements of RTTM eligibility.

¹² In the existing transaction reporting system for municipal securities, no report is made of the offsetting side of an agency transaction done by an introducing broker against its clearing broker's position. This change to introduce IDRO reports is being made at the request of NASD to provide a more complete audit trail for surveillance purposes. It also provides consistency with the manner in which similar transactions are handled in the TRACE transaction reporting system for corporate bonds.



1.3 New Procedures

1.3.1 Reporting Inter-Dealer Capacity

The chart on the following two pages shows various types of transactions and describes the procedures to report the capacity of each dealer. The key transactions are:

Inter-dealer trade between two principals (example I). Dealer A and Dealer B are both clearing brokers trading as principals. Dealer A sells securities to Dealer B. A and B both report an inter-dealer trade as principal. In addition, Dealer B reports a principal sale to a customer.

Inter-dealer trade as agent for customer (example II). Dealer B, acting as agent for a customer, buys securities from Dealer A. Dealer A sells from its principal account but B's trade does not affect B's principal position. If the security is RTTM-eligible, Dealer A and Dealer B each must submit the inter-dealer trade for comparison and regulatory reporting. Dealer A reports the inter-dealer trade was done as principal. Dealer B reports the inter-dealer trade was done as agent. In addition, Dealer B reports an agency sale to a customer.

Trade from clearing broker's position by introducing broker – IDRO (example III). Dealer E is a correspondent of Dealer B and has the privilege to sell securities from, or purchase securities into, Dealer B's inventory. In the example, Dealer E sells RTTM-eligible securities from B's inventory to a customer as agent. Dealer B must submit an IDRO transaction to RTRS, reporting that B sold as principal to E and that E purchased as agent. This transaction is submitted to RTRS through the FICC Access Network, but is not reported to RTTM for comparison. In addition, Dealer B reports an agency sale to the customer.¹³

¹³ This report is similar to a TRACE “automatic give-up” (AGU) report.

Reporting Dealer Capacities and Identities

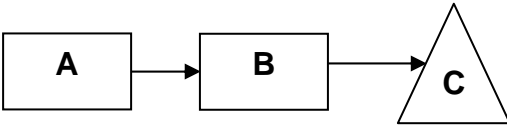
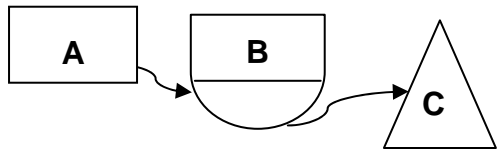
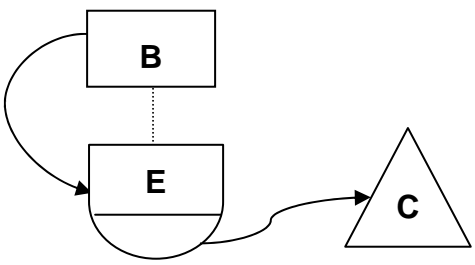
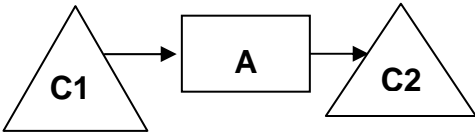
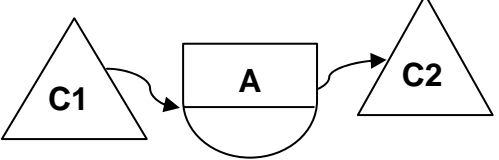
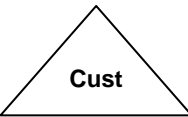
Diagram	Description	What Dealers Report
<p>I</p> 	<p>Dealer A sells to Dealer B; Dealer B sells as principal to customer. May or may not be "riskless principal" transaction.</p>	<p>Dealer A and Dealer B each must ensure an inter-dealer trade report is sent and, if eligible, a comparison is made. Dealer B also causes a customer report to be sent, showing that it effected a sale. Dealer B reports that it acted as principal in both reports. Dealer A reports it acted as principal.</p>
<p>II</p> 	<p>Dealer B acts as Customer C's agent to purchase security from Dealer A. Dealer A to "deliver" to Dealer B.</p>	<p>Dealer A and Dealer B each must ensure an inter-dealer trade report is sent and, if eligible, a comparison is made. Dealer B also causes a customer report to be sent, showing that it effected a sale. Dealer B reports that it acted as agent in both reports. Dealer A acted as principal.</p>
<p>III</p> 	<p>Dealer E acts as Customer C's agent to purchase security from Dealer B. Dealer E is a correspondent of Dealer B, such that Dealer B handles "delivery" to Customer C. This is termed an "inter-dealer regulatory-only (IDRO) " transaction.</p>	<p>Dealer B must ensure an inter-dealer trade regulatory-only report is sent. No comparison is necessary. Dealer E also causes a customer report to be sent, showing that it effected a sale. Dealer E's capacity in both reports is as agent. Dealer B reports it acted as principal.</p>
<p>IV</p> 	<p>Dealer A buys from Customer C1 as principal; Dealer A sells to Customer C2 as principal. May or may not be "riskless principal" transaction.</p>	<p>Dealer A causes a customer report to be sent for the buy from C1, and a separate customer report for the sell to C2. In both customer reports Dealer A reports that it acted as principal.</p>
<p>V</p> 	<p>Dealer A buys as agent from Customer C1 and sells as agent to Customer C2. (Termed an "agency cross" trade.)</p>	<p>Dealer A causes a customer report to be sent for the buy from C1, and a separate customer report for the sell to C2. In both customer reports, Dealer A reports that it acted as agent.</p>
<p>LEGEND:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px;">Clearing</div> <div style="border: 1px solid black; padding: 5px;">Corresp</div> <div style="text-align: center;">  <p>Cust</p> </div> </div>		

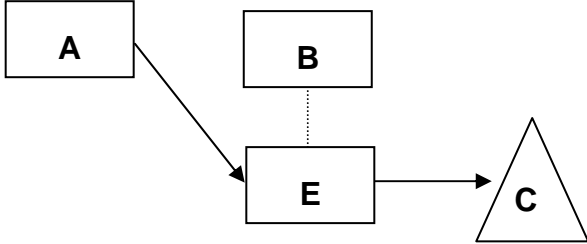
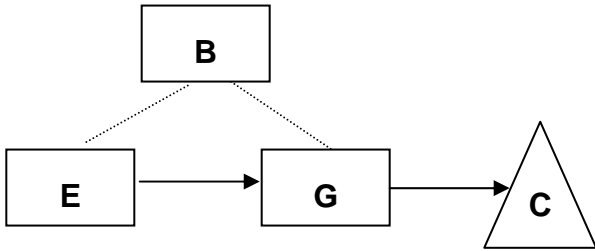
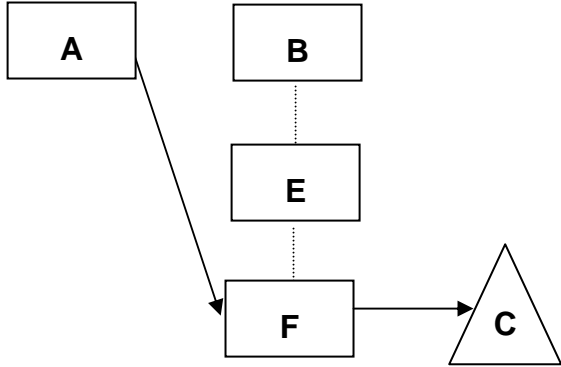
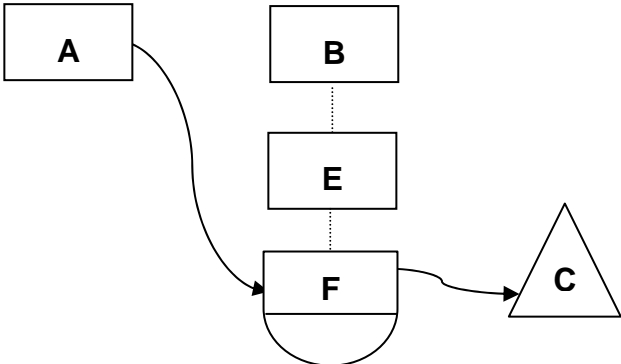
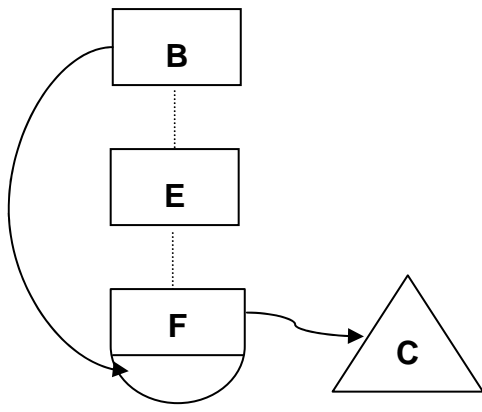
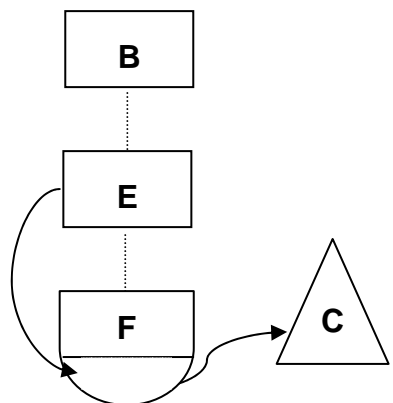
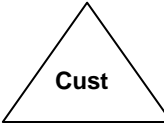
	Diagram	Description	What Dealers Report
I a		<p>VARIATION OF EXAMPLE I Dealer A sells to Dealer E; Dealer E sells as principal to customer. Dealer E is a correspondent of Dealer B.</p>	<p>Dealer A and Dealer E each must ensure an inter-dealer trade report is sent and, if eligible, a comparison is made. Dealer E also causes a customer report to be sent, showing that it effected a sale. Dealer E reports that it acted as principal in both reports. Dealer A reports it acted as principal.</p>
I b		<p>VARIATION OF EXAMPLE I Dealer E sells to Dealer G; Dealer G sells as principal to customer. Both Dealer E and Dealer G are correspondents of Dealer B.</p>	<p>Dealer E and Dealer G each must ensure an inter-dealer trade report is sent and, if eligible, a comparison is made. Dealer G also causes a customer report to be sent, showing that it effected a sale. Dealer G reports that it acted as principal in both reports. Dealer E reports it acted as principal.</p>
I c		<p>VARIATION OF EXAMPLE I Dealer A sells to Dealer F; Dealer F sells as principal to customer. Dealer E is correspondent of Dealer B. Dealer F is correspondent of Dealer E. (Dealer F is termed a correspondent's correspondent - COCO).</p>	<p>Dealer A and Dealer F each must ensure an inter-dealer trade report is sent and, if eligible, a comparison is made. Dealer A reports it acted as principal. Dealer F also causes a customer report to be sent, showing that it effected a sale. Dealer F reports that it acted as principal in both reports. Report symbols of B, E and F to RTTM.</p>
II a		<p>VARIATION OF EXAMPLE II Dealer F acts as C's agent to purchase security from Dealer A. Dealer E is a correspondent of Dealer B. (Dealer F is a correspondent's correspondent.) Dealer A to "deliver" to Dealer B.</p>	<p>Dealer A and Dealer F each must ensure an inter-dealer trade report is sent and, if eligible, a comparison is made. Dealer F also causes a customer report to be sent, showing that it effected a sale. Dealer F reports that it acted as agent in both reports. Dealer A reports it acted as principal. Report symbols of B, E and F to RTTM.</p>

	Diagram	Description	What Dealers Report
III a		<p>VARIATION OF EXAMPLE III Dealer F acts as Customer C's agent to purchase security from Dealer B. Dealer F is a correspondent of Dealer E. Dealer E is a correspondent of Dealer B. Dealer B handles "delivery" to Customer C. IDRO, COCO .</p>	<p>Dealer B and Dealer F each must ensure an inter-dealer trade report is sent. No comparison is necessary. Dealer F also causes a customer report to be sent, showing that it effected a sale. Dealer F reports that it acted as agent in both reports. Dealer B reports it acted as principal. Report symbols of B, E and F to RTTM.</p>
III b		<p>VARIATION OF EXAMPLE III Dealer F acts as Customer C's agent to purchase security from Dealer E. Dealer F is a correspondent of Dealer E. Dealer E is a correspondent of Dealer B. Inter-dealer regulatory-only (IDRO) and COCO.</p>	<p>Dealer E and Dealer F each must ensure an inter-dealer trade report is sent. No comparison is necessary. Dealer F also causes a customer report to be sent, showing that it effected a sale. Dealer F reports that it acted as agent in both reports. Dealer E reports it acted as principal. Report symbols of B, E and F to RTTM.</p>
<p>LEGEND:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px;">Clearing</div> <div style="border: 1px solid black; padding: 5px;">Corresp</div> <div style="text-align: center;">  Cust </div> </div>			

1.3.2. Reporting the Correspondent of a Correspondent

Every transaction that is reported to RTRS must include the NASD assigned symbol that identifies the dealer that effected the trade. Usually, this is the NSCC participant (if the participant is reporting on its own behalf) or its direct correspondent. In some cases, however, the dealer that effected the trade is a correspondent of a direct correspondent. An example: participant 0123 has direct correspondent dealer “E”. “E”, in turn, has a correspondent dealer “F”. In RTRS, the indirect correspondent, “F”, is known as a “correspondent of a correspondent.” To ensure a complete audit trail record that identifies all dealers connected with the trade, the identities of all three dealers must be reported. In the example given, the transaction report would include symbol 0123 as the Participant, E as Correspondent, and F as Correspondent of Correspondent. The chart on the preceding pages shows how to report trades involving a correspondent of a correspondent in examples Ic, IIa, IIIa and IIIb.

1.3.3. Input and Change Procedures

1.3.3.a. Initial Input

As mentioned in the Preface, an advantage of the real-time environment over the existing environment for inter-dealer trades is that a single trade message will satisfy both regulatory trade reporting and comparison purposes.¹⁴ This will help ensure consistency of records among dealers that effect inter-dealer trades, their clearing brokers, the RTTM system, and RTRS. It also increases the likelihood that trade input will be accurate.

Trades will be submitted to the RTTM comparison system by clearing brokers, either on their own behalf or on behalf of their correspondent dealers. Accordingly, clearing brokers will report inter-dealer trades by their correspondents to the MSRB with the same message they use to submit the trade for comparison.

The format of the single message will incorporate both trade comparison and regulatory reporting data elements. The regulatory reporting elements are those required by the MSRB for reporting purposes but not needed for comparison – for example, the time of trade execution. In the real-time environment, it will be possible for correspondent dealers to view on the Web Interface all data about their trades submitted by their clearing broker for comparison to RTTM and reported for regulatory purposes to RTRS. As described immediately below, correspondent dealers will be able, if necessary, to make corrections to the regulatory data without a need for the clearing broker to submit corrected regulatory data on their behalf.

In the real-time environment, dealers will report customer transactions as they do currently in the batch environment, that is, either the dealer that effects the trade will submit the report or another party, such as a service bureau or clearing broker, will submit the report on behalf of the effecting dealer.

¹⁴ See “Plans for MSRB’s Real-Time Transaction Reporting System,” Notice 2003-3 (February 3, 2003), on www.msrb.org.

1.3.3.b. Modification and Cancellation

This section describes which of the parties with reporting responsibility may change trade data, and under what conditions changes may be made.

MSRB's Rule G-14 requires puts primary responsibility upon the dealer that effects trades to report them accurately and in a timely manner, with shared responsibility placed upon the dealer's agent (clearing broker or service bureau) that may assist in reporting. The MSRB recognizes that a dealer on occasion, despite its best efforts to report accurately and timely, may need to correct elements of a trade that are in error, or to cancel a trade completely, *e.g.* in case a trade is mistakenly reported twice. Such corrections and cancellations must be done as soon as possible.

The following principles govern who can change trade data that is reported to RTRS. The next section gives principles governing when data can be changed. Because of the role of FICC in clearance and settlement, principles regarding inter-dealer trades are more restrictive than principles for customer trades.

Inter-dealer trades: Only NSCC participants may change data that is used to match two sides of the trade or used to calculate the settlement amount of the trade. (This data is known as "match data" and is defined below.) The dealer that effects an inter-dealer trade, whether participant or non-participant, may change data used solely for regulatory purposes, except as follows. Non-participants are restricted to the Web Interface to change inter-dealer trade data – that is, non-participants may not use MQ for any action on inter-dealer trades.

RTRS will segregate the data submitted by dealers on each side of the trade, to enable assessment of the compliance of each dealer with the reporting rules of G-14. A change made to regulatory data (*e.g.*, time of trade) by a dealer will not affect the corresponding data submitted by the contra parties.

Reversal of compared inter-dealer trades: The RTTM system allows participants to reverse, or exactly offset, an inter-dealer trade after the trade has been compared. Non-participants may not reverse trades. (Reversal does not apply to customer or IDRO trades.)

Customer trades: 1. The dealer that effected the trade, or its agent for reporting, may input or change data about the trade. 2. The participant may use either MQ, the RTTM Web, or the RTRS Web Interface for these purposes. 3. The non-participant, through its agent with a valid participant number, may use either MQ, the RTTM Web, or the RTRS Web Interface, or the non-participant, with MSRB authorization, may use the RTRS Web Interface directly, to make these changes.

Inter-dealer regulatory-only (IDRO) reports: 1. The clearing broker must input the report on behalf of itself and its correspondent. 2. The clearing broker may modify the data or cancel the entire trade report.

Match data: For these purposes, the "match data" about inter-dealer trades, which may be changed only by participants and only before the trade is matched, consists of:

- **Accrued Interest**



- Buy/Sell Indicator
- Concession
- Contraparty (buyer or seller)
- CUSIP
- Issue Type (Syndicate/Target Syndicate)
- Locked-in/Demand/Bilateral Trade Indicator
- Market of Execution
- Participant (buyer or seller)
- Price (Yield or Dollar Price)
- Quantity
- Record Type (Instruct, Modify, Cancel, DK)
- Reversal Indicator (Reversals only)
- Settlement Amount
- Settlement Date
- Settlement Date Adjustment (Extended Settlement Date)
- Settlement Type Indicator (Special Trade Indicator)
- Trade Date¹⁵ [the “Trade Time” portion of Trade Date is not match data]
- Trade Type/Target Indicator (Locked-in [QSR] and target QSR trades)¹⁶

Regulatory-only data: Inter-dealer trade data used solely for regulatory purposes, which may be changed by participants or via the Web Interface by non-participants, consists of:

- ATS Identifier

¹⁵ Although Trade Date is listed as a match item in the *RTTM Business Requirements*, RTTM may adjust the Trade Date of a side to make a match. Dealers should not enter changes to Trade Date into the RTRS system.

¹⁶ Additional match data values apply to NYSE ABS trades. Listed here for completeness, they are: Issue type = Regular Way or New Issue; Trade type = ABS and target ABS.



- Contraparty Correspondent
- Contraparty Correspondent of Correspondent
- Destination (MSRB or NASD)
- Executing Broker Commission
- Originator of message
- Participant Correspondent
- Participant Correspondent of Correspondent
- Reversal Control Number
- Special Price Reason Code
- Trade Time
- Trading Capacity - Contraparty
- Trading Capacity - Participant
- Type of Price - Weighted Price

Customer and IDRO trade data is all used for regulatory purposes and may be changed by a participant or non participant, if it effected the trade, or its agent (submitter).

Data elements that are not listed as either match data or solely regulatory data may not be changed by any user – for example, match control number or regulator control number.

1.3.3.c. Conditions for modification and cancellation

The following rules govern when trade data may be modified and canceled.

Inter-dealer trades: NSCC rules govern the timing of changes to inter-dealer trades.¹⁷ Before a trade is matched, and on the same day the trade report is submitted, any data element except the CUSIP number or market of execution may be changed. The participant may cancel its trade report until the trade is matched. After RTTM matches the trade, or if it is unmatched after submission date, no match data may be changed. Regulatory data, however, may be changed either before or after the trade is matched, and for up to one year after submission date.

As mentioned above, participants may reverse a matched trade.

Customer trades: Any incorrectly reported data may be changed for up to 90 days after initial submission date.

¹⁷ See Section 1.4 or refer to RTTM documentation for the relevant rules.

IDRO reports: Any incorrectly reported data may be changed for up to 90 days after initial submission date.

1.4 Relation of RTTM to RTRS

1.4.1 RTTM Service Features

RTRS handles both inter-dealer and customer trades as consistently as possible, but because of the concurrent need to compare and match the buy-side and sell-side data of inter-dealer trades, understanding RTRS requires an understanding of the NSCC's real-time comparison system, RTTM. RTTM will provide a means for dealers to satisfy two goals at once – that of real-time transaction reporting and real-time comparison of inter-dealer transactions. Section 1.4 gives an overview of RTTM's features and the relationship between RTRS and RTTM. NSCC has described the following RTTM services:

- NSCC members have the ability to submit trade input to RTTM intra-day, as trades are executed, using the SWIFT 15022 MT515 message format. The MT515 inbound message specification will support all information required for RTTM to facilitate settlement, as well as that information required for the regulatory bodies.
- Submitters can immediately receive RTTM trade status information (i.e., notification of whether the trade has been accepted or rejected) via the SWIFT 15022 MT509 message format. This format is also used to provide up-to-the-minute trade status information to members as transactions are processed by RTTM (for example, a message is sent when a trade matches, is canceled or is modified).
- Trade counterparties can also be notified immediately via a SWIFT 15022 MT518 message when a trade has been submitted against them. The SWIFT 15022 MT518 message contains full trade details, like the MT515. It is also used to communicate to the participant those changes that RTTM may have made to trade records that were previously submitted.
- Regulatory reporting data received real-time will be immediately forwarded to the appropriate regulatory interface for price transparency and surveillance purposes.
- NSCC participants and non-participants have the ability to submit Regulator Only (Reporting-Only) messages.
- NSCC members are also apprised of RTTM system availability and major system events through MT599 Administrative Messages; members and non-members also are apprised of RTRS availability and major system events through MT599s.

Under RTTM, NSCC's matching process will run in real-time, enabling participants to match trades as close as possible to their execution and submission. With interactive messaging, participants have the ability to submit trade data to RTTM, review output, and identify and correct any errors, all within minutes of execution. NSCC will continue for some time to provide the existing end-of-day output from the comparison system. Once MSRB's 15-minute reporting requirement becomes effective, participants will be able to submit interactive messages in real-time while continuing to receive end-of-day batch output. However, to ensure participants are able to reconcile RTTM system events to their own applications at any point in time, it is highly recommended that they process interactive output. Interactive output is created irrespective of the method of input to the



RTTM application. In other words, those participants that elect to receive interactive message output will do so even if their counterparties submit in batch.¹⁸

For additional RTTM service details, please refer to New Service Bulletins available on the Internet at www.ficc.com, www.gfcc.com and www.nscf.com.

1.4.2. RTTM Role in Regulatory Reporting

RTTM will serve as a single conduit for participants to submit their fixed income trades for both trade matching and regulatory reporting. Participants will therefore submit a single trade message to RTTM for both matching and real-time reporting of their street-side municipal bond trades to the MSRB and their over-the-counter (OTC) corporate bond trades to the NASD to comply with applicable price transparency requirements.¹⁹ MSRB will require firms to report and match municipal bond trades within fifteen minutes of execution in mid 2004, using a single submission for the initial clearance and price reporting of street-side trades.²⁰

While customer information is not accepted into the RTTM matching application, interactive messages of customer trade activity submitted to the RTTM Access Network by participants and service bureaus will be forwarded to RTRS, as specified by the participant. Customer trade reports may also be submitted to RTRS via the RTTM Web Interface.

The MT515 layout supports input requirements for RTTM as well as for MSRB and NASD customer and inter-dealer transactions; specific fields have been allocated for regulatory reporting. The layouts included in this document will support submission of trades for regulatory reporting by non-NSCC members as well as members. While RTTM will validate all matching-related fields, it will not validate that regulatory fields are populated, nor that they are populated with the correct information. RTTM will, however, validate regulatory fields for correct format, to the extent that SWIFT 15022 messages can be created for the regulators based on participant supplied information, where applicable. Each regulatory body will be responsible for ensuring required information is submitted accurately by its members.

1.4.3. Directing Submissions to Comparison and Reporting Systems

The MT515 interactive message layout enables NSCC participants to submit one record that will facilitate matching and settlement as well as regulatory reporting. Participants will be able, via the

¹⁸ At a time to be determined, NSCC will discontinue supporting the end-of-day batch output.

¹⁹ It should be noted that at the time of this publication, FICC and the NASD are currently reviewing open issues regarding the role FICC will provide when the NASD requires real-time trade reporting for OTC corporate bond trades. While RTTM is prepared to support the current NSCC TRACE interface for 75 minute reporting, it has not been determined that the interface will continue to be supported should the NASD require reporting at more frequent intervals. All functionality described in this document is based on supporting the current environment. Subsequent information will be provided once conclusions regarding the process are reached.

²⁰ Please refer to MSRB notice 2003-3, dated February 3, 2003 on www.msrb.org.



MT515, to indicate whether the record of a municipal securities trade should be sent to RTTM and/or the MSRB’s RTRS.

The header of the MT515 enables a participant to designate in the Receiver field whether the record should go to RTTM and, where applicable, the regulator (NSCCTRRS), or whether the record should go to the regulator only (NSCCREGO).

In addition, the Transaction Processing narrative field (:70E::TPRO//) in the Confirmation Details block (CONFDET) contains a repeating field which is required to further tell the RTTM router where a record should be directed. Participants must indicate whether they want their trades to go to:

1. RTTM only (/DEST01)
2. MSRB only (/DEST02)
3. RTTM and MSRB (/DEST01/DEST02)

These options should use the following Recipient in the message header in combination with Destinations in the :70E::TPRO// field:

RTTM/ Regulator	Destination (:70E::TPRO//)	Header- Receiver
RTTM only	/DEST01	NSCCTRRS
MSRB only	/DEST02	NSCCREGO
RTTM and MSRB	/DEST01 /DEST02	NSCCTRRS

It should be noted that where a Recipient in the message header does not agree with the Destinations reflected in the :70E::TPRO// field, RTTM will reject the message for “Inconsistent Recipient Information”. Where an unknown value is found in the receiver field, the message will be rejected for “Unknown Target Application”.

1.4.4. RTTM/RTRS Input-Output Relationships

Currently trades are reported in batch mode and the MSRB publishes daily reports covering the previous day’s trading. When real-time reporting of municipal securities becomes mandatory under Rule G-14, dealers will no longer be in compliance with the rule if they submit trades using the existing method. Time relationships for input and output in real time are described here.²¹

²¹ See the FICC Specification, Section 1.3.1.a, for a discussion of the existing batch submission method.



Inter-Dealer Trades

Input

On interactive messages, participants will be required to indicate if an MT515 record should be sent to RTTM and/or RTRS.

A destination of MSRB (/DEST02) in the Transaction Processing Narrative field (:70E::TPRO//) is required in order for a trade to be sent to RTRS at the MSRB for reporting purposes. Related system generated events will also be forwarded by RTTM to the MSRB (based on this indicator and trade market of execution).

- All Inter-Dealer Trade records sent for matching-only (not for reporting) should be marked with NSCCTRRS in the header and with /DEST01 (RTTM) in the :70E::TPRO// field.²²
- All Inter-Dealer Trade records submitted for both matching and reporting should be marked with NSCCTRRS in the header and with /DEST01/DEST02 (RTTM and MSRB) in the :70E::TPRO// field.
- All inter-dealer trade records submitted for reporting-only should reflect NSCCREGO in the MT515 header and with /DEST02 (MSRB) in the :70E::TPRO// field. Inter-dealer records submitted for “reporting-only” are those that affect trades that are not stored in the RTTM database, that affect only the regulatory data listed above, and do not affect any match data. Customer trades and IDROs are also submitted for reporting-only.

It should be noted that inter-dealer trade modifies for reporting-only purposes should continue to be submitted to NSCCTRRS (RTTM) until the trade is no longer on the RTTM system, after which time the trade modify should be directed to NSCCREGO. RTTM sends the participant an MT518 Settlement Disposition Message to inform it when the trade will no longer be stored on RTTM. Generally speaking, trades will remain on RTTM as follows (*see* Appendix C of NSCC’s May 30, 2003 New Service Bulletin, “NSCC Real-Time Matching for Corporates, Municipals and UITs” (on www.ficc.com) for details):

- All matched trades, other than comparison-only, will be available for regulatory modifies through end-of-day delivery date (anticipated actual settlement date).
- Comparison-only matched trades will be available through end-of-day contractual settlement date.
- Unmatched inter-dealer trades that are not DK’d or “pending” will remain on RTTM through the end-of-day submission day + 2.

If a trade was not initially reported to RTTM or if it has been purged from RTTM (see below), RTTM will reject any Modification or Cancel message directed to RTTM. RTTM will reject such messages if they have either of the following values:

²² It should be noted that since all municipal securities trades eligible for comparison must be reported to the MSRB, few, if any, records will be sent for comparison only. Most, or all, records will be sent for both comparison and reporting.



:70E::TPRO//DEST02

:70E::TPRO//DEST01/DEST02

If the trade is not in RTTM, a Modification or Cancel message intended for RTRS must be directed to RTRS (DEST 02) *only*. See Section 1.6 for more on the options on recording regulatory changes in one or both systems.

Output

RTRS outputs will be available in two formats: MT509 messages and e-mail. Messages will be directed to participants that have informed FICC and MSRB that they are capable of reading interactive message data. E-mail will be available as an option to any user, including participants, non-participants and service bureaus, with a valid participant number, submitting for dealers.

For as long as an inter-dealer trade is in the RTTM database, RTTM will respond to any input (Instruction, Modify, Cancel, etc.) with either an MT509 acknowledgement or a rejection message. If RTTM has already acknowledged an inter-dealer input and RTRS does not find any regulatory errors (including lateness) in it, RTRS will not send an additional MT509 (although it will send an e-mail if the user has requested e-mails). However, RTRS will send an *additional* MT509 in the following cases:

- A regulatory error is found in the input of the inter-dealer trade, or it was received late
- A Modify is received changing regulatory data after the dealer is advised via an MT509 of a regulatory error.

Reporting-only trade records sent to the MSRB (NSCCREGO) will receive no RTTM-generated ACK/NAK messages (unless the record is non-SWIFT/ISO 15022 compliant, in which case, NSCCTRRS will be the sender of the NAK information).

RTRS will send an MT509 if a record of a customer trade or IDRO is received by the reporting deadline and has no regulatory-related errors. RTRS will also send an MT509 for a customer trade or IDRO which has a regulatory error, or which the dealer has modified.

All MSRB output will also be made available via the RTRS Web Interface. For trades initially reported through RTTM (DEST 01) as well as forwarded to RTRS, to which changes have been made through RTTM, regulatory data elements and the regulatory status will also be displayed on the RTTM Web. Details of this FICC report access functionality will be published by FICC at a later date.

To help participants know where to direct changes to trades that were originally sent to RTTM, RTTM will send deletion messages to participants when trades have been “purged” from the RTTM database. For matched inter-dealer trades, RTTM will send an MT518 settlement disposition record that includes the delivery date and RTTM will purge the trade record at end-of-day on the delivery date. For customer and IDRO trades, RTTM will send an MT509 “delete uncomparred” record on the purge date. For purge dates of unmatched inter-dealer trades, see



Appendix C of NSCC's May 30, 2003 New Service Bulletin, "NSCC Real-Time Matching for Corporates, Municipals and UITs" (on www.ficc.com/cmucmu/other.docs/cmucmu_new_svc_bulletin.pdf).

1.5 IDRO Trade Reporting Procedure

To report an inter-dealer regulatory only transaction, the following procedures will be used.

- The clearing broker (participant) submits the message as a unilateral (single record) inter-dealer transaction with Trade Transaction Type of "locked-in".
- The Trade Type Indicator in the record pertains to the clearing broker's role as either seller or buyer. If securities are sold from the clearing broker's inventory (its principal account), a "Sell" record is submitted; otherwise, a "Buy" record.
- The clearing broker enters its participant identifier as SELL/GSCC/PART if securities are sold from its inventory, or as BUYR/GSCC/PART if bought into its inventory. On the other side, the clearing broker enters "IDRO" (*i.e.*,/GSCC/PARTIDRO).
- The clearing broker assigns its own External Reference Number (X-REF) to the trade. When RTRS acknowledges the trade it will return a Regulator Control Number which can be used as an alternative to the X-REF if the trade later needs to be modified or canceled.

Definitions of Trade Transaction Type, Trade Type Indicator, X-REF and Regulator Control Number are in Section 4.

1.6 How Trade Messages Can Be Distinguished

To provide information on RTTM Web to participants about the regulatory status of all reported trades, RTTM will store information on customer and IDRO trades reported to it by participants, as well as inter-dealer trades. A participant may store on RTTM and RTRS both its own and its correspondent's trades by directing the trades to both the NSCC and the MSRB (/DEST01/DEST02).

It is the participant's option whether to direct customer and IDRO trade messages to RTTM for storage and display on RTTM Web. However, if a customer or IDRO trade is initially reported to RTRS, later modifications may be made to the trades only via RTRS, and RTTM will not reflect the trades.

If a customer or IDRO trade is initially reported to RTTM as well as to RTRS and later modified or canceled, *only* changes made via RTTM by the participant will be reflected on RTTM. It should be understood that if the participant modifies a customer or IDRO trade by input directly into RTRS, the regulatory data reflected on RTTM may not correspond to the modification depicted in RTRS. (Participants may make input directly into RTRS either by sending a message to RTRS only (DEST02), or by input to the RTRS Web Interface.) A similar caution applies to trades changed by a non-participant via the RTRS Web Interface: the regulatory status reflected on RTTM to the participant will not reflect changes made by the non-participant in RTRS.

Municipal securities trade messages have the following distinguishing characteristics.



Bilateral inter-dealer

Instruction and match item modification (may or may not include change to regulatory data also): Receiver is NSCC (TRRS), destination RTTM and RTRS, trade transaction type indicator is “cash”.

Modification to only regulatory data after trade is purged from RTTM: Receiver is MSRB (REGO), destination is RTRS, trade transaction type indicator is “cash”.

Demand (syndicate takedown)

Instruction and match item modification (may or may not include change to regulatory data also): Receiver is NSCC (TRRS), destination RTTM and RTRS, trade transaction type indicator is “demand”.

Modification to only regulatory data after trade is purged from RTTM: Receiver is MSRB (REGO), destination is RTRS, trade transaction type indicator is “demand”.

Locked-in (QSR)

Instruction and match item modification (may or may not include change to regulatory data also): Receiver is NSCC (TRRS), destination is RTTM and RTRS, trade transaction type indicator is “locked-in,” trade type/target indicator is TSQS.

Modification to only regulatory data: Receiver is REGO, destination is RTRS, trade transaction type indicator is “locked-in,” trade type/target indicator is TSQS. (This Modify applies to an earlier Instruct that reported a QSR. Trade.)

Customer Trade

Instruction or modification: receiver is NSCC or MSRB (TRRS or REGO), destination is both RTTM and RTRS or is only RTRS, trade transaction type indicator is “cash”. One party is always “CUST.”

Inter-dealer Regulatory-only (IDRO)

Instruction: Receiver is NSCC or MSRB (TRRS or REGO), destination is both RTTM and RTRS or is only RTRS, trade indicator is “locked-in,” trade type/target indicator is absent. The Participant field on the side whose inventory is changed has the clearing broker’s participant number; on the other side it has “IDRO.” Modification: Receiver is REGO, destination RTRS, locked-in, trade type/target indicator is absent.

2. INTERACTIVE MESSAGE GUIDELINES

Section 2.1, “Overview,” through Section 2.6, “MT599 Overview”²³ provide some background information that may be useful for interpreting the detailed message specifications that follow. FICC Government and Mortgage-Backed divisions have already implemented the real-time matching and interactive messaging services. The services described in this document are being extended to NSCC. Sections 2.1 through 2.6 are primarily intended for participants and service bureaus who prepare and submit messages.

The remainder of Section 2 is intended for both participants and non-participants. It describes the flow of data through RTRS and RTM and the error messages that RTRS will produce. Dealers that effect inter-dealer or customer trades will be using the information described in this portion of the document.

2.1 Overview

FICC has adapted the ISO 15022 message formats for interactive matching input and output. These ISO formats were developed in coordination with international securities industry working groups (i.e., the ISO Technical Committee, TC68) in order to establish a viable and efficient industry standard. This standard defines messages composed of required and optional variable-length sequences of tags and data fields, maximizing the flexibility and practical application of the messages.

The important aspect of this format is the ability to include only the data necessary for a specific business transaction. Each trade message may require somewhat different fields. Coding for these formats should allow new functionality to be added without requiring extensive re-testing.

The flexible format of the ISO 15022, continuing evolution message standards, and the ongoing deployment of new FICC services, makes it likely that new fields will be added to the standard. Efforts should be made to implement a general, field-processing engine, rather than a hard-coded, fixed implementation of the entire message specification. Chapter 14 of the "SWIFT Standards Category 5 Securities Markets Message Usage Guidelines – September, 2000 Edition" document presents a programming guide that provides suggestions for programming these ISO 15022 message format.

Much of the information that appears in this section of the document has been derived from the “SWIFT Standards Category 5 Securities Market Message Usage Guidelines – September, 2000 Edition”.

While FICC has elected to use SWIFT ISO 15022 standardized messages, it is not intending to utilize the SWIFT network. The current plan is to utilize our proprietary network for communication between FICC and its members. The messages are intended, however, to be compliant with SWIFT regulations so that the SWIFT network could be used, if ultimately deemed appropriate.

2.2 ISO 15022 Message Structure

ISO 15022 SWIFT message formats are constructed using a modular methodology based on the premise that information can be identified and programmed once, then reused wherever needed. Using this

²³ These sections are a revised form of the corresponding sections of the FICC Specification.

approach, data is configured into logical groups (i.e., generic fields and blocks) according to business purpose. These groups are then uniquely identified (using tags, qualifiers and start/end of block designators) so that they can be used whenever needed to fulfill particular business purposes across a number of messages without requiring extensive reprogramming.

If the basic message structure were diagrammed from the top down (going from the more general to the more specific), you would have a Message Header followed by one or more information blocks (potentially containing sub-blocks), composed of one or more fields. Each of these components is defined in the text below.

2.2.1. Message Header

The message header specifies the sending and receiving parties of the message and provides the message type. FICC has added a password to this header to provide an additional level of security for NSCC participants. The message header is the first component of every message. FICC requires that the fields in the header have a fixed format. The header is populated as a continuous string of data (complying with the requirement specifying the allowable characters for a given line in a message) and terminates as a regular data field (with a carriage return line feed “CRLF”).

2.2.2. Blocks and Sub-blocks

A block may be defined as a group of fields containing related business information that is framed by start-of-block and end-of-block designators. The use of a block is not restricted to any given message; it can be reused across a number of messages and combined with other blocks to fulfill a variety of business requirements. For example, the General Information block (found in the MT515, MT509 and MT518) contains general information regarding the trade, such as trade reference numbers. The Confirmation Details block (found in the MT515 and MT518) contains specific trade information such as trade date, settlement date, price, security and information regarding the confirming parties.

Each message contains one or more blocks. A typical message contains a General Information block, followed by a series of detail blocks. These blocks may be mandatory or optional within a particular message, and are structured as follows:

- A start-of-block designator (represented by the tag 16R), indicating the start of a group of related information;
- One or more sub-blocks and/or fields; and
- An end-of-block designator (represented by the tag 16S), indicating the end of a group of related information.

An information block may be further divided into sub-blocks containing groups of fields that further define the block. The structure of a sub-block is the same as that of a block, the difference being that it is “nested” or contained within the block. For example, the Confirmation Parties blocks are sub-blocks of the Confirmation Details block. Sub-blocks, under certain circumstances, can be repeated in a block (e.g., the Buyer and Seller Confirming Party sub-blocks).

2.2.3. Fields

There are two types of fields: **generic fields and discrete fields**. As the names imply, generic fields are multi-purpose fields used across messages and message types, whereas discrete fields in messages are limited to a single purpose. Generic fields further support the flexibility and modular message structure of the message formats. Each generic field is a basic group of business data that is common throughout all messages, such as date and amount.

At a minimum, each field is composed of an identifying **tag** and its associated **field data**. A tag may be thought of simply as a 2-digit number that represents the type of data contained in the field followed by an alpha character that provides format information associated with the field contents. For example, 98A is the generic tag used to indicate a date field in a particular format (YYYYMMDD).²⁴ The format for a tag includes two delimiters – one to indicate the start of the tag, and a second to indicate the end of the tag. These delimiters are indicated using a colon. Continuing with the example above, the proper format for the generic tag used to indicate a date in the YYYYMMDD format would be “:98A:”.

Because there are a number of different types of dates that may be associated with any given trade, the generic field tag must be further described if it is to be useful. Qualifiers are used to provide this additional level of description. For example, the tag 98A followed by the qualifier SETT means that the corresponding field data is the settlement date for the trade. The tag 98A followed by the qualifier TRAD means the corresponding field data is the trade date for the trade. Qualifiers for generic tags are always preceded by an additional colon “:”.

The generic field for a settlement date of March 31, 2003 in the YYYYMMDD format, including the generic tag, the qualifier and the field data would be:

:98A::SETT//20030331

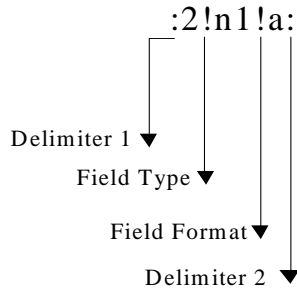
Although tags are numeric, they generally do not need to be placed in sequence, except if there is a sequence dependency as part of the format. Tags that are part of a block must remain within the “start” and “end” block tags.

²⁴ This section is taken from the *NSCC Participant Specifications for Matching Input and Output, Version 1.0*, Section 2.

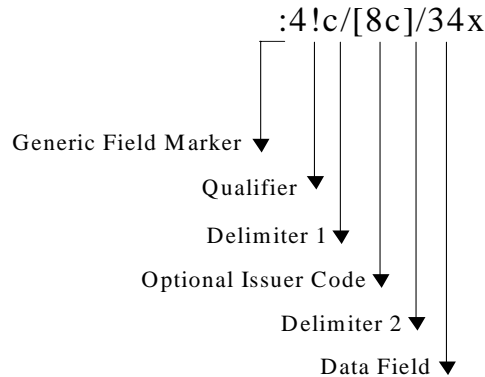
2.2.4. Tag and Field Format Illustrations and Chart

The illustration below shows the format for a generic field tag (e.g., :98A:) and its associated field data. The illustrations are followed by charts providing the definitions of the elements delineated in the illustrations:

Sample Field Tag:



Sample Generic Field Format:

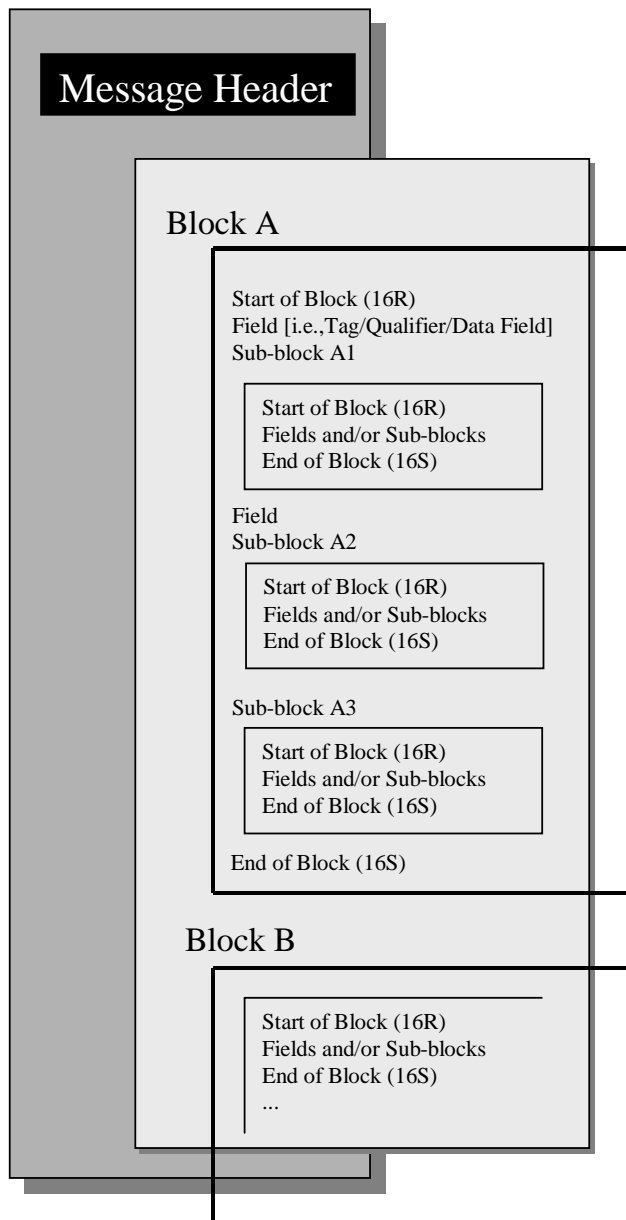


Field Tag Components	Format	Definition
Delimiter 1	:	Shows the start of the field tag.
Type of Field	2!n	2-digit number representing the data type. Note that “!” indicates a fixed field size.
Field Format	1!a	The format of the contents of the data field.
Delimiter 2	:	Shows the end of the field tag.
Example - Field Tag	:98A:	“98” denotes Generic Date Field. “A” denotes date 8!n (YYYYMMDD) format.

Field Components	Format	Definition
Generic Field Marker	:	Identifies the field as generic.
Qualifier	4!c	Provides the business significance of the data, and is mandatory.
Delimiter 1	/	Mandatory delimiter.
Optional Issuer Code	[8c]	When SWIFT/ISO defined codes are not used, allows for the use of market, or issuer, codes with a maximum of 8 characters (e.g., GSCC).
Delimiter 2	/	Mandatory delimiter.
Data Field	34x	Data for the field. The format is specified by the letter option of the field format (e.g., 98A specifies a date format of 8!n = YYYYMMDD).
Example - Tag/Qualifier/Data Field	:98A::SETT//20030331	The colon preceding the qualifier “SETT” indicates that this is a generic field. “:SETT//” with the tag “98A” denotes that this field is a Settlement Date in the YYYYMMDD format.

2.2.5. Illustration of Message Structure

The figure below illustrates the basic SWIFT Message structure for ISO 15022 messages. For generic structural illustrations of the MT515, MT509 and MT518 messages (as specified by SWIFT), refer to Appendix D of the FICC Specification.



2.3 MT515 Message Overview

The SWIFT ISO 15022 MT515 message will be used by dealers and service bureaus to submit trades to RTTM and RTRS, to correct regulatory data, to enter trade cancellations, to modify previously submitted trades, to DK inter-dealer trades submitted against them, and to submit Reversals of previously submitted (and matched) inter-dealer trades. Field 22F PROC in the Confirmation Details (CONFDET) block will enable the submitter to indicate to RTTM the type of record being sent. How this field is populated for each record type is detailed below. The MT515 format will support the following message types:

	Message Type	Usage
1.	Instruct Message (:22F::PROC/GSCC/INST)	<p>Used to submit trade details to RTTM and RTRS for trades executed by participants or approved Locked-in or Demand submitters, to report trades with customers effected by dealers, and to report IDROs. This message will support:</p> <ol style="list-style-type: none"> 1) all fields required to effect trade matching; 2) certain other SWIFT mandatory fields; and 3) all required regulatory reporting fields.
2.	Cancel Message (:22F::PROC/GSCC/CANC)	<p>Used to initiate the cancellation of a previously submitted unmatched inter-dealer trade or a customer or IDRO trade. A Cancel Message should be an exact copy of an Instruct Message (except for having its own Sender's Reference [SEME]), and as such will contain full trade details. (A Cancel of an inter-dealer trade should contain the last version of the trade on the RTTM system as long as the trade is stored on RTTM.)²⁵ A Cancel of a customer trade or an IDRO should contain the last version of the trade on the RTRS system. If an inter-dealer trade has already been matched, it may not be canceled. (A reversal must be submitted to RTTM.)</p> <p>If the inter-dealer trade has not been matched or the trade has been recorded and registered based on the input of a valid Locked-in or Demand submitter, only the original, or Locked-in/Demand, submitter may submit a Cancel against a trade.</p>
3.	Modify Message (:22F::PROC/GSCC/MDFC)	<p>Used to submit a modification to a previously entered trade.</p> <ul style="list-style-type: none"> • Inter-dealer trade, pre-matching – Modifications may be made on submission date (before a trade is matched or sent to settlement) to all MT515 fields except 94B TRAD (Market of Execution) and 35B (CUSIP). To change the market of execution or the CUSIP, the trade must be canceled and re-booked. • Inter-dealer trade, pre-matching (after submission date) and post-matching – The only fields that may be modified using this message will be the Participant Reference Number (X-ref) and regulatory fields. • Customer and IDRO – Modifications may be made to all fields except 35B (CUSIP) and 98C (the Date portion of Trade Date and Time). The Time portion of 98C may be changed.

²⁵ If the need should arise, for regulatory purposes, to cancel or modify the regulatory data about an inter-dealer trade that has been settled and purged off RTTM, include all details as in the last version stored in RTRS. Direct the Cancel or Modify message to RTTM only (Receiver = REGO, Destination = 02 only).



		All trade modifications for inter-dealer trades should be submitted to RTTM until the trade is purged off RTTM. After a trade is no longer available on RTTM, all regulatory-only changes should be submitted to the REGO system.
4.	DK Message (:22F::PROC/GSCC/TDDK)	Used to submit a notification to RTTM (and the Contraparty) that a participant does not know, or agree with, the inter-dealer trade submitted against it by the Contraparty. The DK message will reflect the entire details of the Match Request received by the DKing party, along with a reason for the DK. DKs may only be submitted against unmatched inter-dealer trades.

All of the above record types apply to Reversals as well as trades. A Reversal (RVSL) indicator must be included in the Transaction Processing Narrative Field (:70E::TPRO//) in the Confirmation Detail Block (CONFDET) to identify that the record applies to a Reversal. (Reversals cannot be done on customer trades or IDROs.

2.4 MT509 Message Overview

The SWIFT ISO 15022 MT509 Message is specified as a Trade Status Message. It will be used to convey the status of each input message that has been submitted to RTTM or RTRS. The MT509 message does not contain full trade details, but rather provides the trade status along with the full set of reference numbers to enable the participant to identify the trade or record submitted. Certain status messages also include additional fields, such as reason codes for regulatory error messages.

Both RTTM and RTRS send MT509 messages to submitters. RTTM MT509s provide the trade status in the matching system and RTRS MT509s provide the regulatory status. Both types of MT509 will use field 25D in the Status (STAT) Block to indicate to the recipient the type of message being sent. For RTTM MT509s, please refer to the FICC Specification, Section 4.3.

RTRS MT509s provide the submitter with the Regulator Control Number which it assigns to customer and IDRO transactions. The RTRS MT509 also indicates whether a trade message has been “affirmed” or “not affirmed.” “Affirmed” means that no regulatory errors have been found and the trade was received within the reporting deadline. “Not affirmed” means that the trade was reported late or that the dealer must modify, or cancel and replace, the trade in order to satisfy regulatory reporting requirements. “Not affirmed” MT509s also contain from one to seven error codes and accompanying text.

The trade status in the RTRS MT509 message may be as follows:

	Status Message	Usage
1.	Trade Input Affirmed (:25D::AFFM//AFFI)	Sent to the trade submitter to acknowledge that its trade input has been found to be free of regulatory errors and submitted within the reporting deadline. The input may be an Instruct, Modify, DK or Cancel of any type of trade. As noted above, if RTTM accepts trade input for an inter-dealer trade and RTRS finds no errors or lateness in the regulatory data, RTRS will <i>not</i> send an additional MT509.

	Status Message	Usage
2.	Trade Input Not Affirmed (:25D::AFFM//NAFI)	<p>Sent to the trade submitter to indicate that its trade input has regulatory errors or has been received by the FICC Access Network after the reporting deadline. The error codes and reasons for the non-affirmation will be indicated on the message (:24B::NAFI and :70D::REAS in the Reason [REAS] Block). Up to 7 codes and reasons will be in one MT509. Not more than one MT509 will be sent in response to one input record. The input may be an Instruct, Modify, DK or Cancel of any type of trade.</p> <p>As noted above, if an inter-dealer trade was previously rejected by RTTM, then RTRS will not send an additional message pertaining to the input. If a trade was previously acknowledged by RTTM, then RTRS may send an additional MT509 “not affirmed” message if regulatory errors or lateness is found.</p>

See Section 2.9 for a list of error messages.

2.5 MT518 Messages

The SWIFT MT518 Message is specified as a Market Side Securities Trade Confirmation. It will be used by RTTM to convey full trade information to the transaction contraparty associated with Instruct, Cancel, and Modify messages submitted against it. Since RTRS does not send MT518 messages to users, this message is not further described here.

2.6 MT599 Message Overview

The MT599 Message is specified by SWIFT as a Free Format Message. RTTM will use this message to convey system administrative information to participants. RTRS will not generate MT599 messages.

The MSRB proposed amendment to its Rule G-14 defines the MSRB Business Day as the time during which trades must be reported within 15 minutes. RTRS will be in operation throughout the MSRB Business Day, which will begin after the RTTM business day starts and end before the RTTM submission cutoff.

FICC has defined the following MT599 messages.

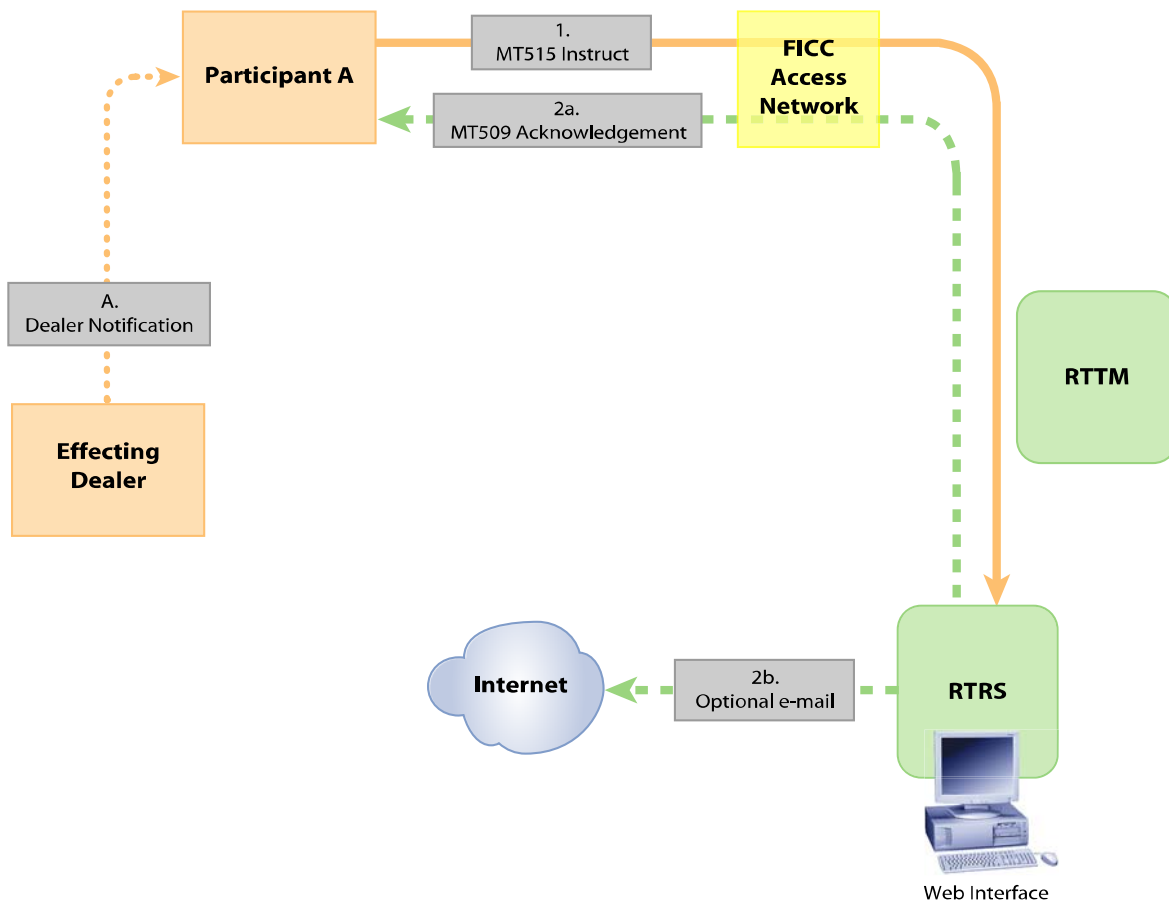
	Message	Usage
1.	RTTM Start-of-Day Notification (:79:GSCC/GADM.../GSOD/)	Sent in the beginning of each business day to inform a member that the RTTM system is available.
2.	RTTM Submission Cutoff End-of-Day Message (:79:GSCC/GADM.../EDCS/)	Sent when participants may no longer submit transactions to be included in RTTM processing for that day. Any transactions submitted to RTTM after this point will be queued to be included in the next business day’s processing.
3.	RTTM/RTRS Processing End-of-Day Message (:79:GSCC/GADM.../EODC/)	Sent to members to inform them that the RTTM system has completed processing for that business day, and that all interactive output to be generated that day has been transmitted. This message also indicates that all RTRS transparency and interactive output has been transmitted.



2.7 Customer Trade Flow

The flow of data in reporting customer trades to RTRS is shown in the following chart. This shows a case in which the trade is reported within the 15-minute deadline and has no errors. Appendix A shows examples of different data flows, such as modification of customer trades are modified after reporting.

Customer Trade Reported by Participant



Message Flow Explanation:

A. Outside of RTTM/RTRS systems – Effecting dealer notifies participant of customer trade.

1. MT515 Instruct – This input message conveys the customer trade data submitted by Participant A for regulatory reporting to RTRS. The participant sends the Instruct to the FICC Access Network, which timestamps it and routes it to RTRS. If the Participant has included DEST01 (RTTM), RTTM also stores the Instruct.

2a. MT509 Trade Affirmed – This output message is sent to Participant A acknowledging that its trade has been accepted by RTRS. In this example, the trade was reported on time and without errors. This message also provides the Regulator Control Number assigned by RTRS. in the TRRF field. The MT509 is sent to the Participant via the FICC Access Network.

. Trade Details and Regulatory Status – RTRS displays the trade details and regulatory status on the RTRSWeb Interface. Either the effecting dealer or the participant can view the trade on the screen.

2b. E-mail to Internet – RTRS sends an e-mail, if requested by the effecting dealer or the participant, with the trade details and regulatory status.

_____ Trade Details and Regulatory Status – In addition to the above, if the Participant has included DEST01, RTTM displays the trade details and regulatory status on the RTTM Web. The participant can view the trade on the screen.

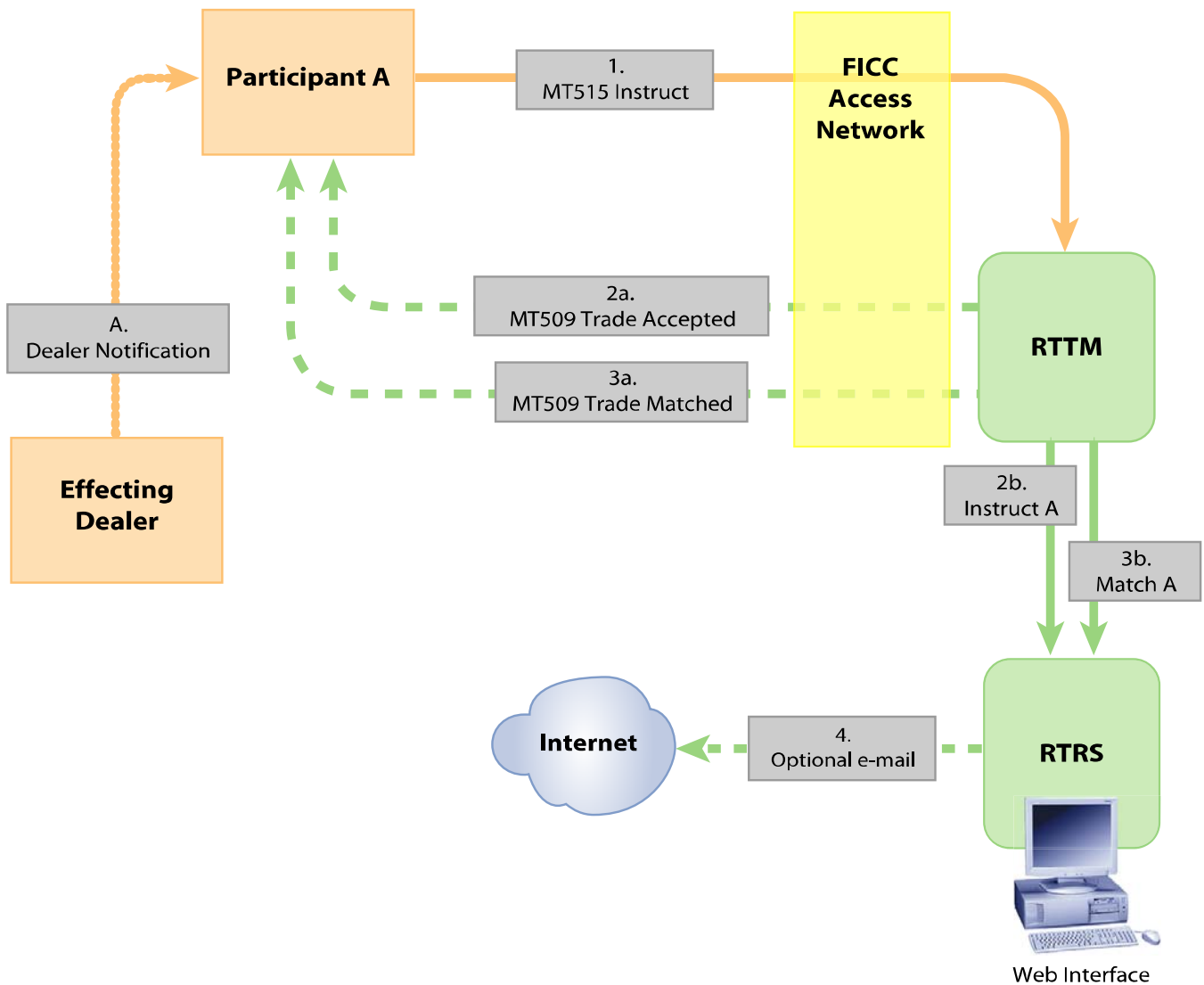
2.8 Inter-Dealer Trade Data Flow

The following chart shows the dealers' interaction with RTRS in reporting an inter-dealer trade via RTTM. Not all details of the flow of RTTM messages are shown; see the FICC Specification, Section 2.8, for full details.

This chart shows a case in which the trade is reported within the 15-minute deadline and has no errors. Appendix A shows examples of different flows, such as modification of regulatory data in an inter-dealer trade.

INTER-DEALER TRADE ACCEPTED, NO REGULATORY ERRORS

(Chart Depicts Relationship of One Side to RTTM/RTRS)



Note: This chart shows the relationship of dealers on one side of the trade to RTTM and RTRS.

Message Flow Explanation:

- A. Outside of RTTM/RTRS systems – Effecting Dealer notifies Participant of inter-dealer trade.
 1. MT515 Instruct – This input message conveys the trade data submitted by Participant for matching within RTTM and reporting to RTRS.
 - 2a. MT509 Trade Accepted – This output message is sent to Participant acknowledging that its trade has been accepted by RTTM and is awaiting further processing. This message also provides the Transaction ID (TID) assigned by RTTM.
 - 2b. Instruct Event Message – RTTM sends copy of Participant input to RTRS.
 - 3a, 3b. MT509 Trade Matched – This output message is sent to Participant informing it that the trade is matched. This message also contains the Match Control Number (COMM). A copy is sent to RTRS.

In this example, the trade was reported on time and without errors. Therefore, RTRS does not send an additional MT509.

Trade Details and Regulatory Status – RTRS displays the trade details and regulatory status on the RTRS Web Interface. Either the effecting dealer or the participant can view the trade on the screen. RTTM also displays the trade details and regulatory status on the RTTM Web screen for the participant.

4. E-mail to Internet – After step 2b and also after steps 3a/3b, RTRS sends an e-mail, if requested by the effecting dealer and/or the participant, with the trade details and regulatory status.

2.9 Error Messages

As noted, RTTM and RTRS will send MT509 messages to submitters informing them of any errors found. Inter-dealer trades that are rejected by RTTM will not be accepted by RTRS, so submitters must correct any RTTM errors before they will receive any MT509 message from RTRS. RTTM reject messages are in Appendix B.

The RTRS error messages, organized by data field in the input message, are:

- Dealer reference number
 - Dealer reference number missing
 - Dealer reference number bad format [illegal character or too many characters]
 - Trade report has dealer reference number already in use

- Dollar price
 - Dollar price calculated from submitted yield differs from submitted price
 - Dollar price calculated from submitted yield equals premium call not lowest
 - Dollar price calculated from submitted yield equals par call not lowest
 - Dollar Price calculated from submitted yield equals maturity date not lowest
 - Dollar Price calculated from submitted yield equals ETM and lower price by call date exists
 - Dollar Price calculated from submitted yield equals pre-refunded date and lower call exists
 - Dollar price missing for regular way CUSIP
 - Dollar price out of reasonable range
 - Dollar price missing
 - Dollar price in wrong format
 - Dollar price less than \$0.00

- Yield
 - Yield missing for possible RW CUSIP
 - Yield out of reasonable range
 - Yield present on possibly defaulted issue
 - Yield missing
 - Yield in wrong format
 - Yield greater than dollar price

- Accrued interest
 - Calculated Accrued Interest does not match submitted accrued interest.
 - No accrued interest submitted, and trade not indicated as having been traded flat
 - Accrued interest submitted, but trade indicated as having been traded flat

- Commission/concession
 - Commission more than 10% of final money
 - Commission in wrong format
 - Commission present on principal trade
 - Commission present on inter-dealer trade
 - Concession present on customer trade
 - Concession present on IDRO trade

- Trade date
 - Cannot modify trade date.
 - Trade date in the future
 - Trade date missing
 - Trade date wrong format

- Time of trade
 - Trade time in the future
 - Time of trade missing
 - Time of trade invalid format
 - Time of trade before 0600 or after 2100
 - Seller and buyer times of trade differ by more than 15 minutes



- Settlement date
 - Settlement date is before trade date
 - Settlement date is not in date format
- Par value
 - Par value not a multiple of \$1000
 - Par value missing
 - Par value wrong format
- Identifiers: Executing dealer, clearing broker, submitter
 - Dealer symbol missing
 - Dealer symbol wrong format
 - Dealer symbol not known to MSRB
 - Clearing ID not known to MSRB
 - Submitter not known to MSRB
 - The contra-party you indicated is not the contra party on the matching side.
 - Unknown contra-party broker symbol
 - Intermediate dealer symbol not known to MSRB
 - Unknown dealer/submitter combination
 - Unknown dealer/clearing combination
- CUSIP number
 - CUSIP not present
 - CUSIP check digit incorrect
- Market of execution
 - Market of execution not Muni (OTMU)
- Dealer capacity
 - Dealer capacity missing
 - Dealer capacity wrong value
- Buy/sell indicator
 - Buy/sell indicator missing
 - Buy/sell indicator wrong value
- Modify/cancel
 - No regulatory data changed. Any previous errors still stand
 - Cannot modify match items with regulatory only modify.
 - Cannot change CUSIP
 - Cannot change trade date
 - Modify or cancel does not match any stored side
 - Modify or cancel received for side already canceled
- Lateness
 - Instruction received more than 90 days after trade date. No dealer response requested.
 - Instruction received more than 1 year after trade date. No dealer response requested.



- Trade reported more than 15 minutes after time of trade
- Other
 - Unparsable MT515 message
 - IDRO trade but trade indicator is not locked-in
 - Customer trade but trade indicator is not cash
 - Trade marked as reversal but reversal control number absent

If no errors are found in an input message and it is received by the deadline, RTRS will send an MT509 that is an “affirmation” without any message included.

Each RTRS error message begins with an abbreviation that indicates whether the message is satisfactory for regulatory reporting purposes. The following are used:

UNSAT	Unsatisfactory for regulatory reporting purposes.
QUEST	Questionable. Examine data and correct as necessary.
LATE	No response needed. Report was late.

The error code associated with messages indicates what the dealer should do to correct the message. “U” indicates the trade should be modified or canceled and replaced. “X” indicates the trade cannot be referenced and should be replaced by a new submission. “Q” and “N” indicate the dealer should examine the trade data and, if necessary, its processing system and procedures to determine why the trade is questionable or why the message is late.

2.10 Data Format Differences

SWIFTISO 15022 messages employ certain standards for data fields that are different from those currently supported by NSCC. RTTM may support a different size field than SWIFT records allow. When the real-time system field sizes are smaller than the current fields, these differences are summarized in the following chart. Please note that where the NSCC field is smaller than the SWIFT field, RTTM will support the smaller value. Participants should expect to populate these fields with a value no larger than the RTTM maximum.

RTTM and RTRS standards also differ in some respects from those currently used in the MSRB’s Customer Trade Reporting System (CTRS). The differences are also shown in the chart. Input to RTRS must conform with NSCC, RTTM and RTRS format restrictions.

Field	NSCC/RTRS Format Restrictions		
	SWIFT Maximum	RTTM Maximum	
Dollar Price (DEAL//PRCT)	15d	13d	4 whole dollars 8 decimal places



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Yield (DEAL//YIEL)	15d	8d	3 whole dollars 4 decimal places
Settlement Amount ²⁶	15d	13d	10 whole dollars 2 decimal places
Accrued Interest Amount	15d	9d	6 whole dollars 2 decimal places
Turnaround Number	15c	4c	4 alphanumeric
Quantity	15d	10d	9 whole numbers
	CTRS Maximum	RTTM Maximum	
Dealer X-REF (dealer control no. and previous reference no.)	20 char	16x	16 printable ASCII symbols
Commission	8 char	9d	6 whole dollars 2 decimal places

²⁶ All amount fields preceded by USD will have 2 decimal places. Applies to Settlement and Accrued Interest Amounts.

3. COMMUNICATIONS OVERVIEW

In order to ensure safe, reliable submission of Trade Messages and delivery of status messages, FICC has implemented, as part of its real-time processing architecture, a message exchange facility and a private communications network. ***As noted in the Introduction, at this point in time FICC does not intend to use the SWIFT network as a communications facility.*** These messages are intended, however, to be compliant with SWIFT requirements to facilitate utilization of the SWIFT network at a later date, if ultimately deemed appropriate.

FICC utilizes the MQ Series product from IBM to support all of the FICC Interactive Message Specifications. This product facilitates a reliable message exchange protocol, which deals completely with sequence numbers, connection recovery and other messaging-related issues. The use of this product precludes the traditional requirement of developing a custom message exchange protocol for each new clearing corporation interface. MQ Series is available for the majority, if not all, of the systems platforms in use at participants' data centers (including MVS, VMS, most common versions of Unix, and NT). Many DTCC members already use this product in-house, to connect with the clearing banks, to connect with FICC's existing RTTM products supporting Government Securities and Mortgage Backed Securities, or for other DTCC services.

FICC's messaging implementation will provide a "To RTTM" queue and a "From RTTM" queue, specific to NSCC Eligible Fixed Income Securities, for each participant. Additional details, including the full naming convention that will be utilized, will be distributed to participants separately.

Participants can connect to FICC's message exchange facility through FICC's private communications network. Access to all RTTM systems and other FICC services have been provided through a full, secure, TCP/IP network, known as the Participant Access Network, since early 1998. Details of that network were provided in a New Service Bulletin dated June 3, 1998. This document is available on FICC's Web Site (www.ficc.com or www.gscc.com) in the Important Documents section, under Other Important Documents, and is also available to participants upon request.

Please see the FICC Specification, Section 3, for more information.



4. MESSAGE SPECIFICATIONS

This section contains the detailed specification for the MT515 and MT509 messages to be used to support Real-Time Matching. These are followed by explanations of selected fields that have specific uses in regulatory reporting in RTRS.

Sections 4.1, 4.2, 4.4 and 4.5 are of interest to participants preparing messages supporting matching and regulatory reporting. They are also of interest to non-participants and service bureaus who originate data for regulatory reporting. Section 4.3 is an explanation of the use of MT515 fields for regulatory reporting. This subsection is intended for any dealer who reports trades to the MSRB.

These specifications include substantial portions of text taken from the FICC Specification, but, regarding inter-dealer trades, these specifications are meant to supplement rather than replace the FICC Specification.

The subsections are:

Section 4.1 - Message Format Guidelines	Provides formatting rules and conventions for NSCC interactive messaging using SWIFT ISO messages.
Section 4.2 - MT515 Message	<ul style="list-style-type: none"> • Section 4.2.1 – Contains the layout and field descriptions for the MT515 message that will be used by participants to send instructions to the RTTM Access Network. • Section 4.2.2 – Provides a detailed analysis of those fields that can appear on all MT515 record types.
Section 4.3 – Explanation of Selected Fields	<p>Explains the use of selected fields for regulatory reporting.</p> <ul style="list-style-type: none"> • Section 4.2.1 – Dollar price, yield, accrued interest, and settlement amount • Section 4.2.2 – Other fields
Section 4.4 - MT509 Message	Contains the layout and field descriptions for the MT509 message. The message will be created by RTRS to notify dealers whether trade input is “affirmed” or “not affirmed” for regulatory purposes.of the following events:

4.1 Message Format Guidelines

Formatting Rules

The following Message and Message Field rules apply to all messages in the Interactive Message Specification:

Message Rules

1. **Direction** – Messages are sent either to or from the RTTM Access Network.
2. **Variable Length** – All messages can vary in length up to a maximum allowable number of characters per message type.
3. **Header** – All messages begin with a standard fixed length header.
4. **Terminator** – All messages end with a standard terminator sequence reflected by a Carriage Return/Line Feed and a Dash ("CRLF –").
5. **Message Type** – Each message belongs to a specified message type.
6. **Message Fields** – A message is composed of one or more message fields.
7. **Character Set** – A-Z, a-z, 0-9, white space and the following punctuation “:,-”

Message Field Rules

1. **Field Tag** – Each field begins with a field tag.
2. **Tag Format** – Each tag is composed of 2 digits and an optional character (2!c[1a]).
3. **Tag Delimiter** – Each tag is prefixed and suffixed by the character “:” (e.g., :23G:).
4. **Field Data** – Field data (including qualifiers and subqualifiers) immediately follows the tag suffix delimiter. Generic tags are prefixed by an additional “:”.
5. **Data Format** – Data conforms to format rules for a specified tag.
6. **Data Elements** – Field data may be divided into multiple elements or subfields.
7. **Qualifiers** – Qualifiers within a data field provide additional format definition. If a qualifier is used, it must appear immediately after the tag suffix delimiter (e.g., :98A::SETT). If further data is required after the qualifier, and the data complies with SWIFT standards, the qualifier is delimited by the characters “//” and the data follows (e.g., :98A::SETT//20030331 or :20C::MAST//19960815). If the data is RTTM or RTRS specific, then the GSCC issuer code is included (e.g., :95R::BUYR/GSCC/PART8520).
8. **Field Delimiter** – The field delimiter sequence is Carriage Return Line Feed , “CRLF” (ASCII Character 13, ASCII Character 10). This sequence immediately follows the data. The combination of Carriage Return Line Feed, Colon (“CRLF:”) indicates the end of one field and the beginning of the next.

Format Conventions

Please note that all the layouts for each of the messages (included in this Section of the document) are organized using the following columns of data:

Column Heading	Description
M/O	The M/O column defines whether the field is always Mandatory, or is Optional in the particular message and sequence according to SWIFT requirements. This column does not provide information as to whether the field is required or optional for RTTM or RTRS. Please refer to section 4.2, which provides a list of required fields
Tag	The Tag column defines the exact tag value that must precede the field. Tags are always delimited by “:” (meaning a “:” would be the character immediately before and after the tag (e.g., “:98A.” indicates a date with a format of YYYYMMDD will follow).
Block or Qualifier	The Block or Qualifier column specifies the Block Name in the case of a start block (16R) or end block (16S) tag. Otherwise, it specifies the required qualifier for the tag (e.g., :98A::SETT indicates a Settlement Date field).
Subqualifier/Options	The Options column specifies the different options available for individual qualifiers for a tag. Each tag, qualifier and option combination uniquely specifies a data element (e.g., 90A::DEAL/YIEL/ indicates a trade price will follow with a “yield” price type).
Field Description	The Field Description column provides a text description of the purpose or use of a data field.
Data Format	The Data Format column specifies the size and characters allowed within a data field, as specified by SWIFT . The Field Specifications that follow each layout indicate how each field should be populated for real-time input/output. The format provided in this column reflects the data that the participant must populate the field with (e.g., :98A::SETT// has a format of YYYYMMDD).

It should be reiterated that the Mandatory/Optional (M/O) Field on the layout indicates if the field is SWIFT mandatory or optional for the message/sequence. It does not denote, however, if the field is required for submission to RTTM or RTRS. Readers must refer to Section 4.2.2 of this document to identify required fields. Those fields that are SWIFT mandatory and/or NSCC mandatory must be reflected on the MT515, or the message (Instruct, Modify, Cancel, or DK) will be rejected by RTTM. If MSRB mandatory fields are absent, RTRS will send an MT509 “not affirmed” error message.

The Data Format field on the layouts is intended to reflect the format of the data that must be used to populate the field. For example, the format for the Settlement Date field (:98A::SETT//20030331) is reflected as “YYYYMMDD”. In addition, all fields on the SWIFT messages are left justified, and if the field has a decimal format (d), it must use a decimal comma, rather than a decimal point.

As a supplement to the layout, a detailed description of each field format follows, which reflects the options, defines the usage and provides an example of each field.

The following characters may appear in the Data Format Column or in any discussion of data format and content:

Character	Meaning	Example Format	Example Usage
A	Upper Case Alpha Characters	6a	ABCDEF

C	Alphanumeric Characters (upper case only)	6c	AB12EF
D	Decimal Number (decimal comma)	15d	2035,45
E	Space	1e	(1blank space)
N	Numeric Characters	8n	20011228
X	Any Printable ASCII Symbol	20x	Anytime & Anyplace
/	The literal “/” as a separator	6c/2a	AB12EF/NY
[]	Optional element format	[/4c]	[optional data - 4 characters]
[N]	Optional “sign” (negative) format	[N]	:19A::SPCN//USDN500,45
!	Fixed length field	12!c	ABCDEFGHIJKL

All fields are, by definition, variable in length with a maximum field size specified, unless a fixed length format is defined by inclusion of the “!”, in which case the size specified is the fixed field size. In the case where the data value in the fixed length field is smaller than the field size specified, the data should be left justified with trailing blanks.

Typical Message Form

Form	Example
<PASSWORD><SENDER><MESSAGE TYPE> <RECEIVER><cr><lf>	ABCDEFGHIH 9500 515/000/GSCC NSCCTRRS
:<BLOCK START TAG>:<BLOCK NAME><cr><lf>	:16R:GENL
:<GENERIC TAG 1>::QUALIFIER//DATA FIELD 1 <cr><lf>	:20C::SEME//004354NY4355
:<TAG2>:DATA FIELD2<cr><lf>	:23G:NEWM
:<GENERIC TAG 3>::QUALIF/ISSUER CODE/DATA FIELD3<cr><lf>	:22F::TRTR/GSCC/CASH
:<BLOCK START TAG>:<BLOCK NAME><cr><lf>	:16R:LINK
:<GENERIC TAG 4>::QUALIFIER//DATA FIELD 3<cr><lf>	:20C::MAST//ABCD1234
:<BLOCK END TAG>:<BLOCK NAME><cr><lf>	:16S:LINK
:<BLOCK END TAG>:<BLOCK NAME><cr><lf>	:16S:GENL

As can be seen from the above example, blocks are demarcated by “start” (16R) and “end” (16S) block tags, with an associated block name. The tags contained within provide the data associated with the purpose of the block. Subsequent blocks, (i.e., the confirming party block), may be repeated as necessary (i.e., to identify the buyer of securities, the seller of securities, etc.) as specified by SWIFT.

Generic fields, as previously described in this document, are designed to serve a particular function, with a qualifier code specifying a specific business purpose to that function. In the preceding example, the “20C” tag is a generic reference number, and the “SEME” qualifier in the GENL block indicates that this is the Sender’s Message identifier. In the LINK subsequence, however, 20C is used to provide a Master Reference Number (External Reference). Processing code can thereby be designed to be reused for creating or validating generic fields as the fields are reused within a message, or across messages.

Message Header Format

M/O	Tag	Block or Qualifier	Options	Data Format	Field Description
M				12!c	Password
M				8!c	Sender



M				3!n/3!n/4!c	Message Type
M				8!c	Receiver

The Message Type Field contained in the message header defines the purpose of the message. As indicated previously, this message header will be utilized on all RT™/RTRS-interactive messages: MT515, MT509, MT518 and MT599. The password field will be blank– filled on all RT™/RTRS outgoing messages (MT509, MT518 and MT599).

4.2 MT515 Message

4.2.1 MT515 Message Specification

This section includes the detailed specification for the MT515 message. The message type will be used to send instructions to RT™ or RTRS. The MT515 will be used for the following record types:

- Instruct
- Cancel
- Modify
- DK

All of the above record types will also support Trades as well as Reversals of previously submitted trades.

Throughout this section, data fields that support regulatory reporting requirements are marked with the label "regulatory field," which is highlighted. Information regarding the use of fields for regulatory purposes has been added here to the FICC information.

MT515 General Format					
				Message Header	
M				Password	12!c
M				Sender	8!c
M				Message Type	3!n/3!n/4!c
M				Receiver	8!c
M	:16R:	GENL		Mandatory Block Start	
M	:20C:	:SEME//		Sender's Reference for this Msg	16x
M	:23G:	NEWM		Message Function = New <i>or</i>	4!c
		CANC		Cancel	
O	:98C:	:PREP//		Preparation Date/Time	YYYYMMDDHHMMSS
M	:22F:	:TRTR/	GSCC/CASH	Bilateral Trade Indicator <i>or</i>	4!c
			GSCC/TRLK	Locked-in Trade Indicator <i>or</i>	
			GSCC/TRDC	Demand Trade Indicator	



SPECIFICATIONS FOR REAL-TIME REPORTING OF MUNICIPAL SECURITIES TRANSACTIONS
4. MESSAGE SPECIFICATIONS

MT515 General Format					
M	:16R:	LINK		Mandatory Repeat Block Start	
M	:20C:	:MAST//		Master Reference Number (External Reference)	16x
M	:16S:	LINK		Repeat Block End	
M	:16R:	LINK		Repeat Block Start	
O	:20C:	:PREV//		Previous Reference Number (Previous External Reference)	16x
M	:16S:	LINK		Repeat Block End	
M	:16R:	LINK		Repeat Block Start	
O	:20C:	:LIST//		RTTM Assigned Reference (TID)	16x
M	:16S:	LINK		Repeat Block End	
M	:16R:	LINK		Repeat Block Start	
O	:20C:	:BASK//		ABS Turnaround Number	16x
M	:16S:	LINK		Repeat Block End	
M	:16R:	LINK		Repeat Block Start	
O	:20C:	:TRRF//		Regulator Control Number	16x
M	:16S:	LINK		Repeat Block End	
M	:16R:	LINK		Repeat Block Start	
O	:20C:	:COMM//		Match Control Number	16x
M	:16S:	LINK		Repeat Block End	
M	:16S:	GENL		Block End	
M	:16R:	CONFDET		Mandatory Block Start	
M	:98C:	:TRAD//		Trade Date & Time	YYYYMMDDHHMMSS
M	:98A:	:SETT//		Settlement Date <i>or</i>	YYYYMMDD
M	:98B:	:SETT//	WISS	Settlement to be completed when the security is issued	4!c
M	:90A:	:DEAL/	/PRCT/	Deal Price – Percentage <i>or</i>	15d
			/YIEL/	Yield	
O	:94B:	:TRAD/	GSCC/NYCP	Place of Trade – Market of Execution – NYSE Corporate <i>or</i>	4!c
			GSCC/OTCP	Over-the-Counter Corporate <i>or</i>	
			GSCC/OTMU	Over-the-Counter Municipal <i>or</i>	
			GSCC/OTUI	Over-the-Counter Unit Investment Trust	
O	:19A:	:SETT/	/USD	Settlement Amount	15d
M	:22H:	:BUSE/	/BUYI	Trade Type – Buy <i>or</i>	4!c
			/SELL	Sell	
O	:22F:	:PRIC/	GSCC/WGTP	Type of Price – Weighted Price	4!c
O	:22F:	:PROC/	GSCC/INST	MT515 Record Type – Instruct <i>or</i>	4!c



SPECIFICATIONS FOR REAL-TIME REPORTING OF MUNICIPAL SECURITIES TRANSACTIONS
4. MESSAGE SPECIFICATIONS

MT515 General Format					
			GSCC/CANC	Cancel <i>or</i>	
			GSCC/MDFC	Modify <i>or</i>	
			GSCC/TDDK	DK	
O	:22F:	:TTCO/	GSCC/TSQS	Trade Type/Target Indicator – QSR Trade <i>or</i>	4!c
			GSCC/TSAB	ABS Trade <i>or</i>	
			GSCC/TTQS	Target QSR Trade <i>or</i>	
			GSCC/TTAB	Target ABS Trade	
M	:22H:	:PAYM/	/APMT	Against Payment Indicator	4!c
M	:16R:	CONFPRTY		Mandatory Repeat Block Start	
M	:95R:	:BUYR/	GSCC/PART	Party = Buyer	34x
O	:20C:	:PROC//		Buyer (Contra) X-ref	16x
O	:70C:	:PACO/	/GSCC	Participant Contact Narrative	(4*35x)
			/TDID	Buyer (Contra) Trader ID	20c
			/BRCH	Branch Sequence Number	3!x4!x
O	:70E:	:DECL/	/GSCC	Narrative/ Additional Reference Numbers/ Information	(10*35x)
			/CORR	Party = Buyer's Correspondent firm	5c
			/COCO	Party = Buyer's Correspondent of the Correspondent	5c
O	:22F:	:TRCA/	/AGEN	Capacity Indicator – Acting as Agent Indicator <i>or</i>	4!a
			/PRIN	Acting as Principal Indicator	
M	:16S:	CONFPRTY		Repeat Block End	
M	:16R:	CONFPRTY		Mandatory Repeat Block Start	
M	:95R:	:SELL/	GSCC/PART	Party = Seller	34x
O	:20C:	:PROC//		Seller (Contra) X-ref	16x
O	:70C:	:PACO/	/GSCC	Participant Contact Narrative	(4*35x)
			/TDID	Seller (Contra) Trader ID	20c
			/BRCH	Branch Sequence Number	3!x4!x
O	:70E:	:DECL/	/GSCC	Narrative/ Additional Reference Numbers/ Information	(10*35x)
			/CORR	Party = Seller's Correspondent Firm	5c
			/COCO	Party = Seller's Correspondent of the Correspondent	5c
O	:22F:	:TRCA/	/AGEN	Capacity Indicator – Acting as Agent Indicator <i>or</i>	4!a
			/PRIN	Acting as Principal Indicator	
M	:16S:	CONFPRTY		Repeat Block End	



SPECIFICATIONS FOR REAL-TIME REPORTING OF MUNICIPAL SECURITIES TRANSACTIONS
4. MESSAGE SPECIFICATIONS

MT515 General Format					
M	:36B:	:CONF/	/FAMT/	Quantity as Face Amount (Par) <i>or</i>	15d
			/UNIT/	Quantity as Units / Shares	
M	:35B:	/US/		Security Identifier – CUSIP	4 * 35x
O	:70E:	:TPRO/	/GSCC	Trade Instruction Processing Narrative	(10*35x)
			/DKRS	DK Reason (see Appendix B)	4!c
			/DEST	Destination Indicator (see Appendix B)	2!c
			/ITYP	Issue Type (see Appendix B)	2!c
			/ORDT	Order Time	6!n (HHMMSS)
			/SDAD	Settlement Date Adjustment	4n
			/RVSL	Trade Reversal Indicator	4!c
			/SPXR	Special Price Reason Code (see Appendix B)	4!c
			/POVR	Price Override Option	4!c
			/RCTL	Reversal Control Number	16x
			/ATME	ATS Identifier	6c
			/YIEL	Yield	[N]15d
M	:16S:	CONFDET		Block End	
M	:16R:	SETDET		Optional Block Start	
M	:22F:	:SETR/	/RPTO	Settlement Indicator – Reporting- only <i>or</i>	4!c
			GSCC/STRD	Settlement Type Indicator – Special Trade <i>or</i>	4!c
			GSCC/TAAA	Subject to AAA <i>or</i>	
			GSCC/XLGL	Ex Legal <i>or</i>	
			GSCC/XINT	Ex Interest <i>or</i>	
			GSCC/CALL	Called <i>or</i>	
			GSCC/BEAR	Bearer Only <i>or</i>	
			GSCC/REGD	Registered Only <i>or</i>	
			GSCC/CPRO	Comparison Only	
M	:16R:	AMT		Optional Block Start	
M	:19A:	:SPCN/	/USD	Special Concessions <i>or</i>	[N]15d
		:EXEC/	/USD	Executing Broker Commission	[N]15d
M	:16S:	AMT		Block End	
M	:16R:	AMT		Optional Block Start	
M	:19A:	:ACRU/	/USD	Accrued Interest Amount	15d
M	:16S:	AMT		Block End	
M	:16S:	SETDET		Block End	



MT515 General Format					
M	:16R:	OTHRPRTY		Optional Block Start	
M	:95Q:	:MEOR//		Originator of message (if other than the Sender)	4!c//4*35x
M	:16S:	OTHRPRTY		Block End	

MT515 Field Specifications		
Message Header	Each Message must contain a message header. All header fields are mandatory fixed format with trailing blanks, where required.	
Password	12!c	A password will be assigned by FICC enabling the sender to submit trades on behalf of specific participants.
Sender	8!c	Participant ID
Message Type	3!n/3!n/4!c	The first three characters indicate to the recipient the message type (515); the second three positions reflect the version of the message interface (currently always 000). The last four characters indicate the issuer code to be used in the message (always "GSCC").
Receiver	8!c	NSCCTRRS (NSCC Trade Registration and Reconciliation System) will always be the recipient of the MT515 messages sent to RTTM-only, or sent to <u>both</u> RTTM and RTRS. NSCCREGO (NSCC Trade Reporting – Regulatory-Only) will be the only recipient of the regulatory-only MT515 messages.
GENL	This Mandatory block provides general information regarding the message. It appears only once in a trade message.	
20C	<p>Sender Message Reference</p> <p>SEME// – This field contains the sender’s message reference number. It is mandatory and must contain a unique number to unambiguously identify each message sent to RTTM/RTRS. (This is a communications message number, not a trade number.) It is suggested that participants use a number that includes a date followed by either a timestamp or a sequence number. In this way uniqueness can be ensured.</p> <p>Note: While the SWIFT message accommodates both Upper and Lower-case alphanumeric and certain symbols, for RTTM purposes, this field must be populated with an upper case alphanumeric value. It cannot contain symbols or hyphens.</p> <p style="text-align: right;"><i>e.g., :20C::SEME//200303310001</i></p>	
23G	<p>Function of the Message</p> <p>This mandatory field identifies the function of the message. It will either be a new message (NEWM) for an Instruct, Modify or DK, or CANC for a cancellation of a previous message.</p> <p>NEWM – will be used for a new trade, a trade modification, or a DK message.</p> <p>CANC – will be used to request the cancellation of a trade.</p> <p style="text-align: right;"><i>e.g., :23G:NEWM</i></p>	
98C	<p>Preparation Date and Time</p> <p>PREP// -This RTTM mandatory field contains the date and time the message sent to RTTM/RTRS was prepared.</p> <p>Note: The “C” format for this (98) tag indicates a date/time format of “YYYYMMDDHHMMSS”.</p> <p style="text-align: right;"><i>e.g., :98C::PREP//20030331102015</i></p>	

MT515 Field Specifications	
22F	<p>Trade Transaction Type Indicator (TRTR)</p> <p>This mandatory field specifies whether the trade (or Reversal) is Bilateral, Locked-in or Demand.</p> <p>TRTR/GSCC/CASH – This qualifier/option should be used on all trades requiring two-sided (Bilateral) matching and on customer trades. Trade reports targeting Syndicate trades must also use this qualifier option.</p> <p>TRTR/GSCC/TRLK – This qualifier/option should be used on Locked-in trades. QSR and IDRO trade reports must use this qualifier option.</p> <p>TRTR/GSCC/TRDC -This qualifier/option should be used on Demand trades. Syndicate trades must use this qualifier option.</p> <p style="text-align: right;"><i>e.g., :22F::TRTR/GSCC/TRLK</i></p>
LINK	<p>The LINK Block can be repeated for the various reference qualifiers required on a Trade Contract or report. It is intended to provide the required information to identify the trade. Each reference number must be enclosed within a Start Link Block (:16R:LINK) and End Link Block (:16S:LINK). Each LINK repeating subsequence is within the GENL Block. At least one LINK sequence is required on the MT515 message.</p>
20C	<p>Reference</p> <p>The Reference Numbers provided by the participant must contain Upper Case AlphaNumeric characters – and must not contain symbols or hyphens. As indicated above, each reference number must be enclosed in a LINK Start and End block. MT515 DK messages (submitted against contraparty trades) will not contain reference numbers in this sequence, but require the MAST qualifier to be included on the record.</p> <p>MAST// – Master Reference Number – This qualifier contains the Dealer’s Reference Number for the trade (External Reference Number [“X-REF”]). This field must be unique for an Instruct. For inter-dealer trades, IDROs and QSRs, it should be populated with the primary reference number that the participant will use to track trades on the RTTM and RTRS systems. For customer trades, it should be populated with the primary reference number that the effecting dealer will use to track trades on the RTRS system. This qualifier is mandatory for inbound MT515 INSTRUCT and DK messages. For DKs this field should always be populated with the value “NONREF”. For inter-dealer trade Cancels and Modifies, the participant can send the External Reference Number (MAST) and/or the RTTM Reference Number (LIST) or, after matching, the Match Control Number (COMM) may be used on Modifies. For customer trade and IDRO Cancels and Modifies, the dealer can send the External Reference Number (MAST) and/or the Regulator Control Number (TRRF).</p> <p>PREV// – Previous Reference Number – This qualifier is used on either Trade Modify or Trade Cancel MT515 records. On Modify records, it is used to modify the reference number and should contain the Participant’s Previous External Reference Number. For MT515 Cancel records you are submitting (:23G:CANC and :22F::PROC/GSCC/CANC in the Confirmation Details (CONFDET) block), this field should always be populated with the value “NONREF”. Do not use this field on Instruct or DK records.</p> <p>LIST// – RTTM Reference Number – This qualifier contains RTTM’s reference number (TID) generated for the trade upon submission. RTTM LISTs (TIDs) will be generated only for inter-dealer trades. For pre-match Cancels and Modifies, the participant can send the External Reference Number (MAST) and/or the RTTM Reference Number (LIST) to identify the trade. For post-match Modifies of inter-dealer trades, the participant must include either X-ref (MAST), the RTTM assigned TID (LIST), or the Match Control Number (COMM). This field will not be used on Instruct or DK records.</p> <p>BASK// – ABS Turnaround Number – This qualifier is reserved for the ABS Turnaround</p>

MT515 Field Specifications	
	<p>Number.</p> <p>TRRF// – Regulator Control Number – regulatory field – This qualifier specifies the control number generated by RTRS for IDRO and Customer trades. It may be used on MT515 Modify and MT515 Cancel messages to identify IDRO or Customer trades being modified or canceled.</p> <p>COMM// – Match Control Number – This qualifier contains the Match Control Number assigned to a pair of sides by RTTM at the time of matching inter-dealer trades. It can be used by participants only on MT515 Modify records submitted post-matching.</p> <p>Note: While the SWIFT message accommodates both Upper and Lowercase alphanumeric and certain symbols, for RTTM purposes, this field must be populated with an upper case alphanumeric value. It cannot contain symbols or hyphens, except where the reference number is assigned by RTTM. The ABS Turnaround Number in the BASK qualifier has a maximum size of 4c.</p> <p style="text-align: right;"><i>e.g., :20C::MAST//PARTREF1</i></p>
CONFDET	<p>The Mandatory CONFDET (Confirmation Details) block appears only once in a Trade Contract or report. It contains Trade and Confirming Party Details.</p>
98C	<p>Trade Date</p> <p>TRAD// – This mandatory field is used on all messages to specify Trade Date and Trade Time. (The “C” format for this (98) tag indicates a date/time format of “YYYYMMDDHHMMSS”.) Time of trade should be included to the second. Time of trade is a regulatory field.</p> <p style="text-align: right;"><i>e.g., :98C::TRAD//20030331095510</i></p>
98A	<p>Settlement Date</p> <p>This mandatory field is used on all MT515 messages. For IDROs, enter the Settlement Date of the associated Customer trade. One of the following options must appear for this field:</p> <p>SETT// – This field is used on all messages to specify settlement date. It is required on all regular way inter-dealer and customer trades and New Issue (NI) final money inter-dealer trades. (The “A” format for this tag (98) indicates a date format of “YYYYMMDD”.)</p>
98B	<p>SETT//WISS – This field is used on all New Issue trades where the settlement date is not known, and no final money is reflected on the trade. (This is the “B” format of tag (98).)</p> <p style="text-align: right;"><i>e.g., :98A::SETT//20030331</i></p>
90A	<p>Deal Price (“Dollar Price” and “Deal Price - Yield”)</p> <p>This field is reflected on all messages. It contains the Execution Price Type and Price. Price is required where no final money is provided (applicable only to certain New Issue inter-dealer trades and all customer and IDRO trades). Only one Tag 90A is allowed per trade report. The price is in SWIFT Standard format, which is left justified, with commas removed, and a comma used instead of a decimal. The following price types may be specified:</p> <p>DEAL//PRCT/ – This qualifier/option is used for dollar prices. <u>For inter-dealer trades</u> where a trade is executed on price, and no final money is provided in the Settlement Amount field (:19A::SETT//), the dollar price should be reflected. Final Money inter-dealer trades, i.e., trades where a settlement amount is entered, should reflect a value of zero “0,” in this field. Use “0” also for IDRO and customer trades in New Issues executed on yield where the dollar price cannot be calculated. <u>For customer trades and IDROs</u>, where both dollar price and yield must be reported, the dollar price is reflected here.</p> <p>DEAL//YIEL/ – This qualifier/option is used for Yield priced NI inter-dealer trades, and should be used where any inter-dealer trade is executed on yield, and no final money is provided in the Settlement Amount field (:19A::SETT//). <u>For customer trades</u>, the DEAL//PRCT field reflects the dollar price, or is 0 if dollar price cannot be calculated, and is not available for reporting the yield. For customer trades, use the “Trade</p>

MT515 Field Specifications	
	<p>Instruction Processing Narrative - Yield” (TPRO//YIEL) field to report the yield.</p> <p>Note: While the SWIFT format accommodates 15d characters (with decimal), the NSCC system supports a maximum field size of 13d for the dollar price (DEAL//PRCT). The format must be '9999,99999999'. Yield price (DEAL//YIEL) must not exceed a maximum field size of 8d in the format of '999,9999'.</p> <p style="text-align: right;"><i>e.g., :90A::DEAL//PRCT/99,625</i></p>
94B	<p>Place of Trade – Market of Execution (TRAD)</p> <p>This field is used to specify the Market of Execution for the trade. Modification of this field is not supported on RTTM. If the market of execution changes, participants will need to cancel and resubmit the trade. All reportable trades in municipal securities should populate this field with TRAD/GSCC/OTMU – Over-the-Counter Municipal.</p> <p style="text-align: right;"><i>e.g., :94B::TRAD/GSCC/OTMU</i></p>
19A	<p>Settlement Amount</p> <p>SETT// – This field is used to specify the Settlement Amount. It is required for all inter-dealer Regular Way trades, but may be omitted on NI trades where the settlement date is not available and final money cannot be calculated. Omit for customer and IDRO trades.</p> <p>The amount is in SWIFT Standard format, which is left justified, with commas removed, and a comma used instead of a decimal. The amount is always preceded by a 3-character ISO currency code (“USD” for NSCC trades).</p> <p>Note: While the SWIFT format can accommodate a value of 15d (with decimal), the NSCC system supports a field size of 13d.</p> <p style="text-align: right;"><i>e.g., :19A::SETT//USD1000500,5</i></p>
22H	<p>Trade Type Indicator (BUSE)</p> <p>This field is required on all MT515 messages. There are two allowable values for the BUSE qualifier:</p> <p>BUSE//BUYI – This qualifier/option indicates that the record submitted is a buy from the dealer’s perspective, i.e., that the dealer reporting the trade bought securities.</p> <p>BUSE//SELL – This qualifier/option indicates that the record submitted is a sell from the dealer’s perspective, i.e., that the dealer reporting the trade sold securities.</p> <p style="text-align: right;"><i>e.g., :22H::BUSE//BUYI</i></p>
22F	<p>Type of Price – Weighted Price</p> <p>PRIC/GSCC/WGTP – regulatory field – This indicator may be used on MT515 Instruct, Cancel or Modify messages to notify the regulator if the price of the trade was based on the weighted average of previous transactions.</p> <p style="text-align: right;"><i>e.g., :22F::PRIC/GSCC/WGTP</i></p>
22F	<p>Processing Indicator (PROC)</p> <p>This processing indicator enables the participant to indicate to RTTM and RTRS the type of record/ command being submitted on the MT515.</p> <p>PROC/GSCC/INST – This qualifier/option indicates that the MT515 is an INSTRUCT record.</p> <p>PROC/GSCC/CANC – This qualifier/option indicates that the MT515 is a CANCEL record. Inter-dealer trades may be canceled only before they are matched by RTTM. IDROs and customer trades may be canceled on RTRS within 90 days of the initial submission date.</p> <p>PROC/GSCC/MDFC – This qualifier/option indicates that the MT515 is a MODIFY record. For inter-dealer trades, modify records may update all matching fields (except CUSIP number) on submission date only where the trade is not matched or sent to settlement.</p>

MT515 Field Specifications	
	<p>After this time, only the participant X-ref or regulatory fields may be modified on RTTM inter-dealer trades. IDROs and customer trades may be modified on RTRS whenever any change is allowed.</p> <p>PROC/GSCC/TDDK – This qualifier/option indicates that the MT515 is a DK record pertaining to an inter-dealer trade. DK does not apply to IDRO or customer trades.</p> <p>Note: All of the above record types also apply to Reversals of inter-dealer trades. The Reversal Indicator (:70E::TPRO//GSCC/RVSL) is used to flag Reversal records.</p> <p style="text-align: right;"><i>e.g., :22F::PROC/GSCC/INST</i></p>
22F	<p>Trade Type / Target Indicator (TTCO)</p> <p>This indicator field is used to identify a QSR trade submission as well as trades targeting QSR trades.</p> <p>Allowable options for this field are as follows:</p> <p>TTCO/GSCC/TSQS – This qualifier/option indicates that this is a QSR Trade Submission. This option applies to all QSR submitted MT515 messages.</p> <p>TTCO/GSCC/TTQS – This qualifier/option indicates that the trade is targeting a QSR trade. This option applies to all Target QSR MT515 messages.</p> <p>Note: Option TSQS must have selected a Trade Transaction Type Indicator (:22F::TRTR) of TRLK (Locked-In). Option TTQS must have selected a TRTR of CASH (Bilateral).</p> <p style="text-align: right;"><i>e.g., :22F::TTCO/GSCC/TSQS</i></p>
22H	<p>Payment Indicator (PAYM)</p> <p>This Payment indicator field is mandatory for the MT515 message. All trades (including IDROs) submitted to RTTM and RTRS must provide the following qualifier:</p> <p>PAYM//APMT – This qualifier/option indicates that the trade will settle against payment.</p> <p style="text-align: right;"><i>e.g., :22H::PAYM//APMT</i></p>
36B	<p>Quantity of Securities (CONF) (“Par”)²⁷</p> <p>This field is mandatory for all MT515 messages. The quantity of the financial instrument is in SWIFT Standard Format, which is left justified, with commas removed, and a comma used instead of a decimal. Valid options are as follows:</p> <p>CONF//FAMT/ – The option ‘FAMT’ indicates the face amount (par), and should be used on all municipal securities trade records. Enter the par amount in dollars. The SWIFT standard requires the use of a comma instead of a decimal, with no punctuation between groups of three digits. For example, enter par of one million dollars as “1000000,”</p> <p>Note: While the SWIFT format can accommodate a value of 15d in this field, the NSCC system can only accommodate a maximum field size of 10d.</p> <p style="text-align: right;"><i>e.g., :36B::CONF//FAMT/1000000,</i></p>
35B	<p>Identification of Security²⁸</p> <p>The security involved is identified in the US by specifying the ISO country identifier (‘/US/’), followed by the CUSIP number. Modification of this field is not supported on RTTM or RTRS.</p> <p>Note: While the SWIFT layout accommodates a format of 4 * 35x, a 9!c (alpha numeric) value should populate the field for the CUSIP.</p> <p style="text-align: right;"><i>e.g., :35B::US/78764HAD6</i></p>

²⁷ Tags 36B, 35B and 70E: TPRO// in the CONFDET block must be placed on the MT515 message following the confirming party subsequences.

²⁸ See previous footnote.

MT515 Field Specifications	
70E	<p>Trade Instruction Processing Narrative (TPRO)²⁹</p> <p>This field is intended to reflect transaction related information not supported by the MT515 layout. It will be used to provide RTTM fields as well as RTRS regulatory fields. Regulatory data, however, is not required by FICC on any MT515 messages that are directed to RTTM. If present, regulatory data will be validated by RTTM for Swift compliance. RTTM will not detect the absence of regulatory data. RTRS will perform presence checks and additional validation of regulatory data.</p> <p>TPRO//GSCC – Denotes narrative trade instruction processing information related to RTTM.</p> <p>/DKRS – Should be used on all MT515 DK messages to specify the reason for the DK. The four-character code can be found in Appendix B of this document.</p> <p>/DEST – Should be used to specify the destination of the message as RTTM (01) and/or MSRB (02). This is a repeating field allowing multiple entries. This field should be populated according to the following rules:</p> <ul style="list-style-type: none"> • Specify DEST01 (RTTM) for all MT515 records requiring matching/processing by RTTM. • Specify DEST02 (MSRB) to indicate that the record should be forwarded to the MSRB. All records other than DK may reflect a DEST02 value. • <p>/ITYP – This field is used by Syndicate Managers and members to specify a Syndicate (ITYPSY) or Target Syndicate (ITYPTS) trade. (It may also be used by the ABS system to specify if a trade is Regular Way (ITYPRW) or New Issue (ITYPNI), but RTRS does <i>not</i> require a Regular Way or New Issue indicator.)</p> <p>/SDAD – The Settlement Date Adjustment subqualifier is used to specify the number of extended settlement days for inter-dealer trades. This field must be included on all extended settlement NI trades, and may optionally be populated for Regular Way (RW) extended settlement trades. This field is not applicable to Syndicate, customer or IDRO trades.</p> <p>/RVSL – This subqualifier is used to indicate that the MT515 record is a Reversal of an inter-dealer trade. To cancel an inter-dealer trade post-matching, a reversal trade must be entered to offset a previously submitted trade. RTTM does not link a reversal to the trade it is intended to reverse, and treats a reversal as a completely new trade; however, for RTRS regulatory requirements, see RCTL below. All MT515 record types apply to Reversal trades, therefore, this option should be included in all MT515 messages for Reversals. Reversals do not apply to IDROs or customer trades.</p> <p>/SPXR – regulatory field – The Special Price Reason Code field is used for trades executed at a price different from the prevailing market price. See Appendix B for a table of Special Price Reason Codes.</p> <p>/POVR – regulatory field – The Price Override Option is used for resubmission of a previously rejected NASD regulator trade to indicate that the entered price/yield is valid although it may fall outside the reasonability check. Price override does not apply to trades in municipal securities reported to RTRS.</p> <p>/RCTL – regulatory field – The Reversal Control Number field should be populated with the Participant X-ref (MAST) or the RTTM Reference Number or TID (LIST) of the trade being reversed.</p>

²⁹ See previous footnote.

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	<p>/ATME – regulatory field – This field will be used to indicate if an Alternative Trading System (ATS) was used to form the contract between the buyer and the seller. Both the buyer and the seller must enter the six-character ATS identifier (to be provided by the MSRB).</p> <p>/YIEL – regulatory field – This subqualifier should not be used on inter-dealer trades. Inter-dealer trades that are executed on the basis of yield should report yield in the DEAL//YIEL field rather than this regulatory TPRO//YIEL field. This regulatory subqualifier should be used on MT515 messages where the yield price is <u>not</u> reflected in the :90A::DEAL// field (i.e., where :90A::DEAL// is populated as :90A::DEAL//PRCT/, followed by either a dollar price or zero "0,"). Customer trades and IDROs for which yield can be calculated should report yield in this regulatory TPRO//YIEL field and dollar price in the DEAL//PRCT field.</p> <p>Note: A continuous string of all applicable subqualifiers (to a maximum of 35 characters per line) follows the TPRO//GSCC qualifier.</p> <p style="text-align: right;"><i>e.g., :70E::TPRO//GSCC/DEST02/SPXRR001/ATME0030A/YIEL3,5</i></p>
CONFPRTY	<p>The Mandatory Confirming Party Block must be repeated for each party to a trade. Each party specified must be enclosed within a Start Party block (:16R:CONFPRTY) and End Party block (:16S:CONFPRTY). Please note that on every trade there should be two (one buyer and one seller) repeating Confirming Party sequences, and one of these parties will also be the submitter of the MT515 record. It should be noted that certain fields in the CONFDET block (36B, 35B and 70E) must follow the Confirming Party subsequences.</p>
95R	<p>Party</p> <p>BUYR/GSCC/PART – specifies the dealer that is the Buying Party in an inter-dealer or IDRO trade. (The “GSCC” issuer code allows the specification to include the NSCC participant or contra ID, depending on whom is acting as buyer or seller). For customer trades where the customer is the buyer, enter “CUST” and see “Explanation of Selected Fields,” below, where the dealer is the buyer.</p> <p>SELL/GSCC/PART – specifies the dealer that is the Selling Party in an inter-dealer or IDRO trade. For customer trades where the customer is the seller, enter “CUST” and see “Explanation of Selected Fields,” below, where the dealer is the buyer</p> <p>Note: While the SWIFT layout supports a format of 35x for this field, the participant must populate the field with the appropriate qualifier and 4 character Participant ID, for buyer or seller. Customer records will have either the buyer or the seller party with a default value of “CUST”. IDRO records will have the Participant ID on the side whose account is affected and “IDRO” on the other side.</p> <p style="text-align: right;"><i>e.g., :95R::SELL/GSCC/PART1563</i></p>
20C	<p>Processing Reference</p> <p>PROC// – This field must be used on DK messages for inter-dealer trades in the appropriate buyer or seller subsequence to indicate the Contraparty’s External Reference Number of the trade being DKed.</p> <p style="text-align: right;"><i>e.g., :20C::PROC//CONTRAXREF1</i></p>
70C	<p>Participant Contact Narrative (PACO)^(continued)</p> <p>This field will not be used by RTRS. It will be used in the appropriate buyer or seller confirming party sequence on MT515 Instructs, Cancels or Modifies submitted to provide information regarding the individual/desk at the contraparty that executed the trade. It should be noted that the trader ID field is for informational purposes only, and will be captured for the purposes of</p>

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	<p>passing the information to the counterparty on MT518 inter-dealer Match Request messages. This field will not be matched or validated, nor will it be a basis for rejection or DK capabilities. (In addition, this narrative field will be used to support the Branch Sequence Number (BRCH), applicable to ABS trades only.)</p> <p>PACO//GSCC – denotes participant contact narrative information specific to RTTM.</p> <p>/TDID – should be used in the appropriate BUYR or SELL confirming party sequence to indicate the following:</p> <ul style="list-style-type: none"> • on MT515 Instruct, Cancel or Modify Records, this qualifier should be used by the submitter to indicate the buyer or seller counterparty ID of the trader that executed the trade. • on MT515 DK messages, this qualifier should be used to reflect the buying or selling submitter’s ID of the trader that executed the trade (as originally submitted by the counterparty). <p>(/BRCH – This qualifier should be used on MT515 messages related to ABS trades to indicate the dealer’s Branch Sequence Number.)</p> <p>Note: The NSCC format accommodates a maximum field size of 7 with the Branch in the first 3 positions and the Sequence Number in the last 4 positions. <i>e.g., :70C::PACO//GSCC/BRCHXYZ1010</i></p>
70E	<p>Narrative (DECL)</p> <p>This field will be used in each party subsequence to identify the executing/correspondent firm, where applicable.</p> <p>DECL//GSCC – denotes narrative information specific to RTTM.</p> <p>/CORR – For inter-dealer and IDRO trades, the CORR field should be used in both the BUYR and SELL confirming party sequences. In these trades, CORR contains the four character NASD assigned symbol that identifies the dealer that effected the transaction, unless the COCO field (see below) is used. If the COCO field is populated, CORR contains the four character NASD assigned symbol of the dealer that is the direct correspondent of the participant. For customer trades, CORR should be used in the BUYR or SELL confirming party sequence to indicate the four character NASD symbol of the dealer that effected the trade.</p> <p>/COCO – regulatory field – For inter-dealer trades, should be used in the BUYR and/or SELL confirming party sequence(s) in addition to CORR only when the dealer who effected the transaction is someone other than the clearing broker (NSCC participant) or the clearing broker’s direct correspondent. MSRB defines such a firm as the “correspondent of the correspondent” for transaction reporting purposes. When populated, COCO contains the four character NASD assigned symbol that identifies the dealer that effected the transaction.</p> <p>Note: While this field can support a narrative 10 * 35x, the participant, at this time, should only provide the above qualifiers and the NASD assigned executing broker symbol in the CORR and COCO fields.</p> <p><i>Note: A continuous string of all applicable subqualifiers (to a maximum of 35 characters per line) follows the DECL//GSCC qualifier, e.g., 70E::DECL//GSCC/CORRATGNCOCOAABB</i></p>
22F	<p>Trading Capacity (TRCA)</p> <p>This field will be used to identify the dealer’s trading capacity as Principal or Agent on all trades. This field should be populated as follows:</p> <ul style="list-style-type: none"> • A bilateral trade submitter should populate its own capacity in the appropriate buyer or seller block – regulatory field. • A QSR submitter should populate the appropriate buyer or seller block to reflect its own trading capacity, and, in addition, the counterparty trading capacity –

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	<p>regulatory field. (continued)</p> <ul style="list-style-type: none"> A syndicate manager should populate both its own as well as the counterparty's capacity in the appropriate buyer or seller block – regulatory field. An IDRO submitter should populate its own capacity as “Principal” in the appropriate buyer or seller block and should submit the capacity of the correspondent as “Agent” in the counterparty block – regulatory field. A customer trade submitter should populate its own capacity in the appropriate buyer or seller block – regulatory field. <p>Valid options for this field are:</p> <p>TRCA//AGEN – denotes that the party (and/or counterparty) is acting as the agent for a customer.</p> <p>TRCA//PRIN – denotes that the party (and/or counterparty) is acting as Principal.</p> <p style="text-align: right;"><i>e.g., :22F::TRCA//AGEN</i></p>
SETDET	<p>This Optional block is necessary only when a Settlement Indicator, a Commission/Concession AMT subsequence, or an Accrued Interest AMT subsequence is specified on the trade.</p>
22F	<p>Settlement Indicator (SETR)</p> <p>This field is SWIFT mandatory for the block, and must be included on all MT515 messages that contain a SETDET block. The available options are as follows:</p> <p>SETR//RPTO – This option must be selected if the trade is not a special trade (i.e., if the trade does not reflect one of the following options for this field).</p> <p>SETR/GSCC/STRD – Indicates that the trade is a Special Trade and will settle Trade for Trade.</p> <p>SETR/GSCC/TAAA – Indicates that the trade is Subject to AAA and will settle Trade for Trade.</p> <p>SETR/GSCC/XLGL – Indicates that the trade is Ex Legal and will settle Trade for Trade.</p> <p>SETR/GSCC/XINT – Indicates that the trade is Ex Interest and will settle Trade for Trade. Note: Report this option regardless of whether or not the regulatory field, “Special Price Reason,” indicates that trading Ex interest resulted in a price away from the market.</p> <p>SETR/GSCC/CALL – Indicates that the trade is Called and will settle Trade for Trade.</p> <p>SETR/GSCC/BEAR – Indicates that the trade is Bearer Only and will settle Trade for Trade.</p> <p>SETR/GSCC/REGD – Indicates that the trade is Registered Only and will settle Trade for Trade.</p> <p>SETR/GSCC/CPRO – Indicates that the trade is Comparison Only and will not go to Settlement.</p> <p>Note: See the FICC Specification, Appendix H for a mapping of the above Settlement Type Indicators to those used on batch input/output.</p> <p style="text-align: right;"><i>e.g., :22F::SETR//RPTO or :22F::SETR/GSCC/STRD</i></p>
AMT	<p>This Optional Repeating Block is only necessary to support the inclusion of Commission, Concession and / or Accrued Interest. This block should always be included within the Settlement Details (SETDET) block.</p>
19A	<p>Commission Amount</p>

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	<p>This field will be used to support the submission of commissions or concessions, which are specified as an Amount per Trade (rather than amount per hundred). Valid options for this field are: (continued)</p> <p>SPCN//USD – This field specifies the special concession amount on NI trades. Concessions will appear only on trades submitted with a yield price (:90A::DEAL//YIEL/). This field is signed to allow positive/negative entries.</p> <p>EXEC//USD – regulatory field – This field specifies the executing broker commission on customer agency trades. Enter commission as a positive amount on both Buys and Sells.</p> <p>Example:</p> <p>A commission/concession rate of .125 per 100 PAR equals 1.25 dollars per 1,000 PAR. The commission/concession amount for a Face Value of 10,000 = 1.25 *10 or 12.5 dollars. This amount will be populated as USD12,5.</p> <p>Note: The value in this field is an Amount per Trade. The commission amount field is in SWIFT Standard Format, which is left justified, with commas removed, and a comma used in lieu of a decimal. The amount must be preceded by a 3-character ISO currency code.</p> <p style="text-align: right;"><i>e.g., :19A::SPCN//USDN12,5</i></p>
19A	<p>Accrued Interest</p> <p>This field should be populated on all MT515 messages for final money trades.</p> <p>ACRU//USD – This field specifies the Accrued Interest amount required on all MT515 submissions for RW inter-dealer trades, and should be populated where a trade should settle with Accrued Interest. That is, whenever Accrued Interest can be calculated on a final money trade, it should be reported. If Accrued Interest is calculated as zero or cannot be calculated, report zero “0,”.</p> <p>Note: While Swift format allows for a field size of 15d, the NSCC system can support a maximum size of 9d.</p> <p style="text-align: right;"><i>e.g., :19A::ACRU//USD1040,</i></p>
OTHRPTY	<p>This Optional block is only necessary if the originator of the message is not the same as the Sender of the message.</p>
95Q	<p>Originator of Message (MEOR)</p> <p>MEOR// – regulatory field – This field specifies the originator of the message if NOT the sender identified in the header of the message.</p> <p style="text-align: right;"><i>e.g., :95Q::MEOR//ORGN</i></p>

4.2.2. Analysis of MT515 Fields by Trade Type

The following table shows, for each MT515 field and for inter-dealer, IDRO and customer trades, whether the field is mandatory, should be omitted or should be used when applicable to the trade.

Field Name	Inter-Dealer	Inter-dealer Regulatory-only	Customer
Password	Mandatory	Mandatory	Mandatory
Sender	Mandatory	Mandatory	Mandatory
Message type	Mandatory	Mandatory	Mandatory
Receiver	Mandatory	Mandatory	Mandatory
Sender's reference for this msg	Mandatory	Mandatory	Mandatory
Message function = new or cancel	Mandatory	Mandatory	Mandatory



SPECIFICATIONS FOR REAL-TIME REPORTING OF MUNICIPAL SECURITIES TRANSACTIONS
4. MESSAGE SPECIFICATIONS

Field Name	Inter-Dealer	Inter-dealer Regulatory-only	Customer
Preparation date/time	Mandatory	Mandatory	Mandatory
Trade Transaction Type indicator	Mandatory: "CASH" for bilateral or syndicate target or QSR target trades; "TRDC" for syndicate (demand) trades; "TRLK" for locked-in (QSR) trades.	Mandatory: "TRLK"	Mandatory: "CASH"
Master reference number (X-REF)	Mandatory for INSTRUCT. For DK message, must be "NONREF". For use in Cancel and Modify, see RTTM Assigned Reference (TID). (On inter-dealer trades, this is the participant's reference number.)	Mandatory for INSTRUCT. For use in Cancel and Modify, see RTTM Assigned Reference. (On IDRO trades, this is the introducing dealer's reference number.)	Mandatory for INSTRUCT. For use in Cancel and Modify, see RTTM Assigned Reference. (On customer trades, this is the introducing dealer's reference number.)
Previous X-REF	May use on Modify message to change X-REF (otherwise use TID). Do not use on Instruct or DK.	May use on Modify or Cancel to change X-REF (otherwise use Regulator Control Number)	May use on Modify or Cancel to change X-REF (otherwise use Regulator Control Number)
RTTM assigned reference (TID)	May use for pre-match Cancel and Modify (otherwise use X-REF), or post-match Modify (otherwise use Previous X-REF or Match Control No.)	Omit	Omit
Regulator control number	Omit	May be used on modify or cancel messages (otherwise, use X-REF)	May be used on modify or cancel messages (otherwise, use X-REF)
Match control number	May be used on modify messages submitted post-matching (otherwise, use X-REF)	Omit	Omit
Trade date and time	Mandatory	Mandatory	Mandatory



SPECIFICATIONS FOR REAL-TIME REPORTING OF MUNICIPAL SECURITIES TRANSACTIONS
4. MESSAGE SPECIFICATIONS

Field Name	Inter-Dealer	Inter-dealer Regulatory-only	Customer
Time of trade (contained in Trade Date field)	Mandatory	Mandatory	Mandatory
Settlement date	Mandatory for regular way and for when-issued with final money	Mandatory (same as settlement date of associated customer trade).	Mandatory
Deal price as dollar price (DEAL//PRCT)	Use to report deal price as dollar price. Note: Must report dollar price, yield or settlement amount on New Issue inter-dealer trades. Inter-dealer trades with settlement amount (either NI or RW) should have DEAL//PRCT as "0,"	Mandatory, except when settlement date is unknown and yield is reported	Mandatory, except when settlement date is unknown and yield is reported
Deal price as yield (DEAL//YIEL)	Use to report deal price as yield. Note: Must report dollar price, yield or settlement amount on New Issue inter-dealer trades.	Use only when security is in when-issued status and is traded on basis of yield	Use only when security is in when-issued status and is traded on basis of yield
Market of execution	Mandatory: "OTMU"	Mandatory: "OTMU"	Mandatory: "OTMU"
Settlement amount	Use for regular way trades and for NI trades reported with final money	Omit	Omit
Buy/sell indicator	Mandatory	Mandatory	Mandatory
Type of price/weighted price	Use when applicable	Use when applicable	Use when applicable
MT515 record type: Inst, Canc, Mod, or DK	Mandatory	Mandatory (cannot be DK)	Mandatory (cannot be DK)
Trade type: QSR indicator	Use for QSR (locked-in) or target QSR trade	Omit	Omit
Against payment indicator	Mandatory: "APMT"	Mandatory: "APMT"	Mandatory: "APMT"
Participant (buyer AND seller)	Mandatory	Mandatory	Mandatory



SPECIFICATIONS FOR REAL-TIME REPORTING OF MUNICIPAL SECURITIES TRANSACTIONS
4. MESSAGE SPECIFICATIONS

Field Name	Inter-Dealer	Inter-dealer Regulatory-only	Customer
Buyer (contra) X-ref AND Seller (contra) X-ref	Use in DK message to indicate the contraparty's external reference number of the trade being DK'd	Omit	Omit
Correspondent (buyer AND seller)	Mandatory	Mandatory	Mandatory to identify dealer that effected the trade; omit on customer's side
Contraparty correspondent of correspondent	Use when applicable	Use when applicable	Omit
Capacity indicator - acting as agent/ principal	Mandatory for dealer reporting the trade; use also for contraparty in unilateral submission	Mandatory	Mandatory on dealer side; omit on customer side
Quantity (par)	Mandatory	Mandatory	Mandatory
CUSIP	Mandatory	Mandatory	Mandatory
DK reason	Use for DK	Omit	Omit
Destination	Mandatory. Use "RTTM" only (rare); or "MSRB" only; or "RTTM" and "MSRB"	Mandatory: "MSRB"	Mandatory: "MSRB"
Syndicate trade indicator	Use for syndicate or targeted syndicate trade	Use for syndicate or targeted syndicate trade	Omit
Trade reversal indicator	Use when applicable	Omit	Omit
Special price reason	Use when applicable	Use when applicable	Use when applicable
Reversal control number	Use on reversal. Enter X-REF or Match Control Number (COMM).	Omit	Omit
ATS identifier	Use when applicable	Use when applicable	Use when applicable
Yield (TPRO//YIEL)	Omit	Mandatory, except for certain securities (securities traded on when-issued status, securities that do not have a fixed rate of interest, defaulted	Mandatory, except for certain securities (same as IDRO)



Field Name	Inter-Dealer	Inter-dealer Regulatory-only	Customer
		securities, securities traded flat or on a discounted basis)	
Settlement Indicator - Reporting only	Mandatory	Mandatory	Mandatory
Concession	Use on new-issue trades when applicable (yield trades only)	Omit	Omit
Commission	Omit	Omit	Use for agency trades. Provide dollar amount for the trade on MT515 message; provide rate for Web screen
Accrued interest	Use for final money trades	Omit	Omit
Originator of message	Mandatory on Web input. Omit on message.	Mandatory	Mandatory
Settlement date adjustment	Use when applicable (for when-issued if not syndicate trade)	Omit	Omit
Settlement type indicator (Special Trade)	Use when applicable	Use when applicable	Use when applicable
THE FOLLOWING FIELDS ARE NOT USED IN REPORTING MUNICIPAL SECURITIES TRADES TO THE MSRB			
Participant contact narrative, buyer contra trader ID, branch sequence number, price override option, order time, broker reference number, ABS turnaround number, trade type/target indicator = ABS trade and Target ABS trade			

4.3 Explanation of Selected Fields

This section adds additional comments regarding fields used differently or more specifically in the MT515 for RTRS regulatory reporting than in RTTM matching. Fields where there are no differences are not listed.

4.3.1 Dollar Price, Yield, Accrued Interest and Settlement Amount

How these fields are reported depends upon the type of trade, as shown in the table below.

Trade Type	DEAL (Deal Price)	TPRO YIEL (Yield)	ACRU (Accrued Interest)	SETT (Settlement Amount)
Inter-dealer New Issue, Settlement Date unknown	Report dollar price as DEAL// PRCT or report yield as DEAL// YIEL	Omit	Omit	Omit



Trade Type	DEAL (Deal Price)	TPRO YIEL (Yield)	ACRU (Accrued Interest)	SETT (Settlement Amount)
Inter-dealer New Issue, first settlement date is known	Report PRCT or YIEL, unless Settlement Amount is reported	Omit	Report, if Settlement Amount is reported	Report, unless Deal Price is reported
Inter-dealer Regular Way	Omit	Omit	Report, if bond pays interest	Report
Customer or IDRO, When Issued	Report dollar price as DEAL// PRCT or report yield as DEAL// YIEL	Omit	Omit	Omit
Customer or IDRO Regular Way	Report dollar price as DEAL// PRCT	Report yield as TPRO// YIEL, if bond pays interest at fixed rate; otherwise omit	Omit	Omit

4.3.2. Other Fields

Sender

Inter-dealer trades: Enter the NSCC participant number of the participant submitting the message.

- Customer and IDRO trades: Enter valid NSCC participant number.

See explanation of Originator field, below, for a table showing the inter-relationship of Sender and Originator.

Header Fields: Other

Rules for the Receiver field were described above in Section 1.4.3. Rules for the other header fields are stated in the FICC Specification.

Trade Transaction Type Indicator

Use “CASH” for two-sided (bilateral) and customer trades. Use “TRLK” (locked-in) for Qualified Special Representative (QSR) and inter-dealer regulatory only (IDRO) trades. Use “TRDC” for Syndicate (demand) trades.

Reference



MAST – Master Reference Number (also known as External Reference Number, or X-REF). For inter-dealer trades and IDROs, populate this field with the primary reference number that the participant will use to track trades in the RTTM and RTRS systems. Each of the *participant's* (clearing broker's) *inter-dealer trades* stored in RTTM must have a unique X-REF. Each of the *effecting dealer's customer trades or IDROs* must have an X-REF that is unique for the effecting dealer. This means that a clearing dealer may use the same X-REF for two of its correspondents. Example: Participant 0123 submits effecting dealer A's trade number 001 and also submits effecting dealer B's trade number 001.

MSRB requires dealers not to re-use an X-REF for a three year period. Although re-use of an X-REF on an inter-dealer trade will not prevent the trade from being matched, RTRS will send an error message requiring the dealer to change the X-REF (using the TID or Regulator Control Number to identify the trade being changed). This rule is required because trades are kept on-line in RTRS for multiple years.

PREV – Previous Reference Number. Use on either Modify or Cancel records. On Modify records, it is used *only* to change the X-REF. Populate this field with the previous X-REF, that is, the X-REF used before the modification. On Cancel records, always populate this field with "NOREF. Do not use this field with Instruct or DK records.

LIST – RTTM Reference Number (TID). This field can be used by the dealer as an alternative to the other reference fields when submitting a Modify or Cancel of an inter-dealer trade.

TRRF – Regulator Control Number. Like LIST, this field can be used by the dealer as an alternative to the other reference fields when submitting a Modify or Cancel of a customer or IDRO trade.

COMM – Match Control Number. This field can be used only on Modify records submitted post-matching for inter-dealer trades. Populate with the Match Control Number previously assigned by RTTM.

Processing Indicator

Enter the following values:

INST (Instruct) – Enter an Instruct when first reporting the trade, or when reporting a trade after its earlier report has been canceled or reversed. In other words, use INST only once while a trade identified by a unique Master Reference Number (MAST or X-REF) is stored on RTTM or RTRS. RTRS will not accept an Instruct for a customer or IDRO trade more than 90 days after trade date, or for an inter-dealer trade more than one year after trade date.

CANC (Cancel) – Enter a Cancel for an inter-dealer trade only before a match has been made by RTTM. Enter a Cancel for a customer trade or IDRO only within 90 days of the initial submission date.

MDFC (Modify) – Enter a Modify for an inter-dealer trade to modify any field except CUSIP on the day of submission before a match has been made by RTTM. Enter a Modify for an inter-dealer trade only to modify the X-REF or regulatory fields after submission date or after a match has been made, but not more than one year after the initial submission date (trade date). Enter a Modify for a customer trade or IDRO only to modify the X-REF or regulatory data, not more than 90 days after initial submission date.

TDDK (DK) – Enter a DK for an inter-dealer trade before a match has been made. Do not enter for a customer or IDRO trade.



Trade Instruction Processing Narrative

This field contains several items for regulatory reporting.

DEST – Destination. An overview of Destination was given in Sections 1.4 and 1.6. Use one or several Destination codes to direct messages as follows:

- To RTTM whenever a municipal securities inter-dealer trade is reported or changed, if the trade is stored in RTTM. (see Section 1.4.4 for purge rules).
- To RTRS whenever any municipal securities trade is reported or changed. To RTTM in addition to RTRS for a customer or IDRO trade which the dealer wishes to store in RTTM.

Section 1 described how messages can be distinguished, using Destination, Receiver, and Trade Indicator.

ITYP – Issue Type. Use to indicate a Syndicate Takedown (ITYPSY) or Target Syndicate (ITYPTS) trade. A Target Syndicate message allows a syndicate member to correct regulatory data in a trade reported by the syndicate manager, or to cause the syndicate trade to match before the end of day of submission. Do not use this field to indicate whether a trade is New Issue or Regular Way.

SPXR – Special Price Reason Code. If the trade was done at a price away from the market price or if the bond was traded flat, use this Special Price Reason Code to indicate the reason. The following codes have been defined:

R001 – Bond is traded flat.

R002 – Settlement other than regular way affected price. NOTE: Use this indicator only if the price differs from the market price for regular way trades. Do *not* use for extended settlement trades at the market price.

R003 – Multiple reasons for special price. Use if more than one reason applies.

R004 – Other. Use if there is a reason not listed for the special price.

RCTL – Reversal Control Number. In a Reversal Instruction, provide the reference number of the trade being reversed. Provide Dealer's Reference Number (X-REF) or Match Control Number (COMM).

ATME – ATS Identifier. An MSRB-assigned code to identify an Alternative Trading System (ATS) operated by a dealer that has registered with the Securities and Exchange Commission as an ATS, when the ATS was used to effect the trade.

YIEL – Yield. This field is used to report the yield on customer and IDRO trades. It is *not* to be used to report the yield in inter-dealer trades effected on a yield basis; instead, use DEAL//YIEL to report such trades.

The yield value reported is the same "net" yield that is reported on customer confirmations. Therefore, it should include the effect of any commission (see MSRB rule G-15(a)). Rule G-15(a) in most cases requires the yield to be computed to the lower of call or nominal maturity date.



If the transaction was effected at par, the yield (usually, the coupon rate) should be reported to RTRS, even though rule G-15(a) allows the yield to be omitted from the confirmation in such a case.

Omit TRPO//YIEL when reporting transactions in securities that do not have a fixed rate of interest. Examples of such securities are variable rate securities, collateralized mortgage obligations, and securities that prepay principal. Omit TPRO//YIEL when reporting trades in defaulted securities or in securities traded on a discounted basis.

Customer trades before the first settlement date is determined, in securities that are in when-issued status: For these trades, the dealer should report either the trade's dollar price or the yield, but may omit the other parameter (since settlement date is needed to calculate price from yield, or yield from price). If the trade was effected on dollar price, report DEAL//PRCT and omit TPRO//YIEL. If the trade was effected on yield, report DEAL//YIEL and omit TPRO//YIEL.

When the initial settlement date is determined, the dealer should not submit a Modify record to report the dollar price or yield to the MSRB if it has already reported the trade accurately in other respects. (RTRS will recalculate the trade as necessary.)

Note that when a new issue trade is initially reported, if the settlement date is known, the dealer must report both the price and the yield.

Party

Inter-dealer trade: On each side of an inter-dealer trade, enter the Participant Number of the clearing broker (NSCC participant) that was a party to the trade. NOTE: For IDROs, the Participant Number will be used on the side of the trade whose account changes, and "IDRO" on the other side. Customer trade: On the customer's side of a customer trade, enter the literal "CUST". On the dealer's side the Party value is used for processing purposes and does not indicate that an organization was a party to the trade. The Party value on the dealer's side must contain a valid NSCC participant number.

Trading Capacity

Identify the dealer's trading capacity as Principal or Agent in all trades. (See Section 1.3.1.). For bilateral inter-dealer trades and customer trades, the submitter enters the capacity only on its own side. For Syndicate Takedown, IDRO and QSR trades, enter the capacity on both sides. An IDRO submitter should populate its own capacity as Principal on the appropriate buyer or seller side and the capacity of the correspondent as Agent.

Settlement Indicator

The "XINT" indicator, which denotes the trade is Ex Interest and will settle Trade for Trade, is used regardless of whether or not the "Special Price Reason Code" indicates that the price of an Ex Interest trade was away from the market. There are no other regulatory comments on other values in the Settlement Indicator field.

Commission Amount



EXEC – Executing Broker Commission. Use on customer agency trades to specify the commission, if any. Use “0” if commission was zero. Specify the amount per trade (not rate). Enter the amount as a positive number on both Buys and Sells.

Accrued Interest

Enter the accrued interest for all final money trades, unless the security does not have a fixed rate of interest. Examples of such securities are variable rate, floating rate, and adjustable rate securities. If the security pays interest at a fixed rate but the calculated amount is zero, enter “0.” If the security does not have a fixed rate of interest, omit the accrued interest field.

Originator of Message

The MSRB will assign a Submitter Identifier to every dealer or service bureau that submits data to RTRS, for use in the Originator field. Inter-dealer trades: If submitted by a participant, omit. If submitted by a service bureau for a participant, enter Submitter Identifier of the Service Bureau.

Customer and IDRO trades: Enter the Submitter Identifier of the participant, non-participant, or service bureau that is submitting the trade.

Relation of Sender and Originator

The relation of these fields is shown in the table below.

Trade Type	Who is Submitting	Sender	Originator (MEOR)
Inter-dealer	Participant	Participant number	Blank
Inter-dealer	Service bureau for Participant	Participant number	Submitter ID of service bureau
Customer or IDRO	Dealer submitting for itself, or service bureau submitting for participant	Participant number	Submitter ID of participant or service bureau

4.4 MT509 Message

4.4.1. MT509 Message Specification

This section provides the detailed specification for the MT509 message sent by RTRS. See the FICC for MT509 messages sent by RTTM on inter-dealer trades. As described in the MT509 Overview in this document, the RTRS MT509 will indicate that a trade message is either affirmed or not affirmed.

MT509 General Format

M/O Tag	Block/ Qualifier	Subqualifier/ Options	Field Description	Data Field Format
			Message Header	
			Password	12!c
			Sender	8!c
			Message Type	3!n/3!n/4!c
			Receiver	8!c
M	16R	GENL	Block Start	
M	20C	SEME	Reference Sender's Reference	16x
M	23G	INST	Function of the Message - status of instruct, or	4!c
		CAST	status of cancel	
O	98C	PREP	Date/Time Preparation Date/Time A or C 4	
M	16R	LINK	Repeat Block Start	
M	20C	:MAST//	Dealer External Reference Number	16x
M	16S	LINK	Repeat Block End	
M	16R	LINK	Repeat Block Start	
O	20C	:PREV//	Previous External Reference Number	16x
M	16S	LINK	Repeat Block End	
M	16R	LINK	Repeat Block Start	



O	20C	:RELA//		Sender's Message Reference Number	16x
M	16S	LINK		Repeat Block End	
M	16R	LINK		Repeat Block Start	
O	20C	:LIST//		FICC TID	16x
M	16S	LINK		Repeat Block End	
M	16R	LINK		Repeat Block Start	
O	20C	:COMM//		Match Control Number	16x
M	16S	LINK		Repeat Block End	
M	16R	LINK		Repeat Block Start	
O	20C	:TRRF//		MSRB Regulator Control Number	16x
M	16S	LINK		Repeat Block End	
M	16R	STAT		Repeat Block Start	
M	25D	:AFFM/	/AFFI	Trade processed without error	4!c
			/NAFI	Trade processing resulted in exception	
M	16R	REAS		Optional Repeat Block Start	
M	24B	:NAFI/		Error Code (see table of error codes)	4!c
O	70D	:REAS//		Error Text	(6*35x)
M	16S	REAS		Repeat Block End	
M	16S	STAT		Repeat Block End	
M	16S	GENL		Block End	

MT509 Field Specifications

Message Header	Each Message must contain a message header. All header fields are mandatory fixed format with trailing blanks, where required.	
Password	12!c	Password fields will be blank filled on MT509 messages.
Sender	8!c	NSCCTRRS (NSCC Trade Registration and Reconciliation System) will be the sender of MT509 messages originating in RTTM. MSRBRTS will be the sender of MT509 messages originating in RTRS.



Message Type	3!n/3!n/4!c	The first three characters indicate to the recipient the message type (509); the second three positions reflect the version of the message interface (currently always 000). The last four characters indicate the issuer code to be used in the message (“GSCC”).
Receiver	8!c	Participant ID
GENL	This mandatory block provides general information regarding the message. It appears only once in a Status Message.	
20C	<p>Sender Message Reference</p> <p>SEME// – This mandatory field contains the sender’s (RTRS) message reference number. It is used on all messages sent by RTRS and will contain a unique number to unambiguously identify each message. (This is a communications message number, not a trade number.)</p> <p>Note: While the SWIFT message accommodates both Upper and Lowercase alphanumeric and certain symbols, for RTRS purposes, this field will be populated with an upper case alphanumeric value. It will not contain symbols or hyphens.</p> <p style="text-align: right;"><i>e.g., :20C::SEME//RTRSCOMREF1</i></p>	

23G	<p>Function of the Message</p> <p>This mandatory field is used on all messages to identify the function of the message. It will either be the status of an Instruct, Modify, or DK (INST), or regarding the submission of a cancellation of a previous message (CAST).</p> <p>INST – This qualifier will be used for all MT509 messages.</p> <p style="text-align: right;"><i>e.g., :23G:INST</i></p>	
98C	<p>Preparation Date and Time</p> <p>PREP// – This field will be reflected on all messages to indicate the date and time the message was prepared by RTRS</p> <p>Note: The “C” format for this (98) tag indicates a date/time format of “YYYYMMDDHHMMSS”.</p> <p style="text-align: right;"><i>e.g., :98C::PREP//20030331101510</i></p>	
LINK	The LINK Block will be repeated for as many reference qualifiers as need to be included in a Trade Status Message. Each subsequence contains reference numbers to identify the trade or record for which the status is being reported. Each reference number will be enclosed within a Start Link Block (:16R:LINK) and End Link Block (:16S:LINK). All LINK repeating subsequences are within the GENL Block.	
20C	<p>Reference</p> <p>As indicated above, each reference number will be enclosed in a LINK Start and End Block.</p> <p>MAST// – Master Reference Number – This qualifier contains the Dealer’s Reference Number for the trade (External Reference Number). The MAST qualifier will be present on all MT509’s except where an MT515 message was rejected for being non-SWIFT compliant, and on MT509’s referring to MT515 DK records submitted.</p> <p>PREV// – Previous Reference Number – This qualifier is used only on records where the External Reference Number has been modified by the dealer and will contain the dealer’s previous External Reference Number.</p> <p>RELA// – MT515 Sender’s Message Reference Number – This qualifier will contain the Sender’s Message Reference Number (20C::SEME//) from the MT515 submitted by the dealer. This may be the only 20C qualifier in the LINK block where an MT509 Reject message is being created for a non-SWIFT compliant MT515.</p> <p>LIST// – RTTM Assigned Reference Number – This qualifier will contain RTTM’s assigned</p>	



	<p>reference number (TID).</p> <p>TRRF// – Regulatory Control Number – This field reflects the control number assigned to a customer or IDRO transaction by the MSRB. Not used for inter-dealer trades.</p> <p>COMM// – Match Control Number – This qualifier will contain the Match Control Number assigned by RTTM upon matching. It will be included on any MT509 message sent post-match. Not used for customer or IDRO trades.</p> <p>Note: Please note that while the SWIFT message accommodates both Upper and Lower case alphanumeric and certain symbols, for RTRS purposes, this field will be populated with an upper case alphanumeric value. It will not contain symbols or hyphens except where the reference number has been assigned by RTRS.</p> <p style="text-align: right;"><i>e.g., :20C::MAST//PARTREF1</i></p>
STATUS	<p>The Status Block will appear on every MT509 message and will notify the dealer of the type of MT509 record being sent, as well as the status of the trade, or record, that was submitted to RTRS.</p>
25D	<p>Status Code</p> <p>The Status code indicates the record type or type of status message being sent by RTRS. Their are two message types:</p> <p>AFFM//AFFI – Affirmed – This qualifier/option is used to indicate that an instruction message has been processed without finding errors.</p> <p>AFFM//NAFI – Not Affirmed – This qualifier/option is used to indicate that after processing, errors have been found. Where this is used, the Reason Block will provide specific information on the error(s) found. (See below)</p> <p style="text-align: right;"><i>e.g., :256D::AFFM//AFFI</i></p>
REASON	<p>The Reason Block will only appear on MT509 messages where an MT515 (Instruct, Modify, Cancel or DK) submitted by the dealer has been found to have errors by RTRS. Each Reason Code must be enclosed within a Start Reason (:16R:REAS) and End Reason (:16S:REAS) Block.</p>
24B	<p>Reason Code</p> <p>This field is mandatory in the block and will appear on all Not Affirmed messages. There can be multiple reason codes on any MT509 Reject Message; each Reason Code must be enclosed within a Start Reason (:16R:REAS) and End Reason (:16S:REAS) Block. The Reason Code will be populated with the following value:</p> <p>NAFI/GSCC/ – this qualifier will be reflected on all messages that indicate to the dealer that the MT515 it submitted was found to have regulatory errors. It will be followed by a four-character error code corresponding to the specific error that was found. The GSCC subqualifier indicates that the error code which follows is not a standard subqualifier specified by SWIFT.</p> <p>Note: Please see Appendix B, which provides a list of all error conditions (and associated codes) that would result from the finding of error in a dealer MT515 message.</p> <p style="text-align: right;"><i>e.g., :24B::NAFI/GSCC/U52B</i></p>
70D	<p>Reason Narrative (REAS)</p> <p>REAS//GSCC – The reason narrative field will contain a brief description of the error that was found.</p> <p>Note: This narrative field will appear in the each repeating REAS sequence.</p> <p style="text-align: right;"><i>e.g., :70D::REAS//UNSAT Dealer Capacity Missing</i></p>



Appendix A: Examples of Data Flows for Regulatory Reporting

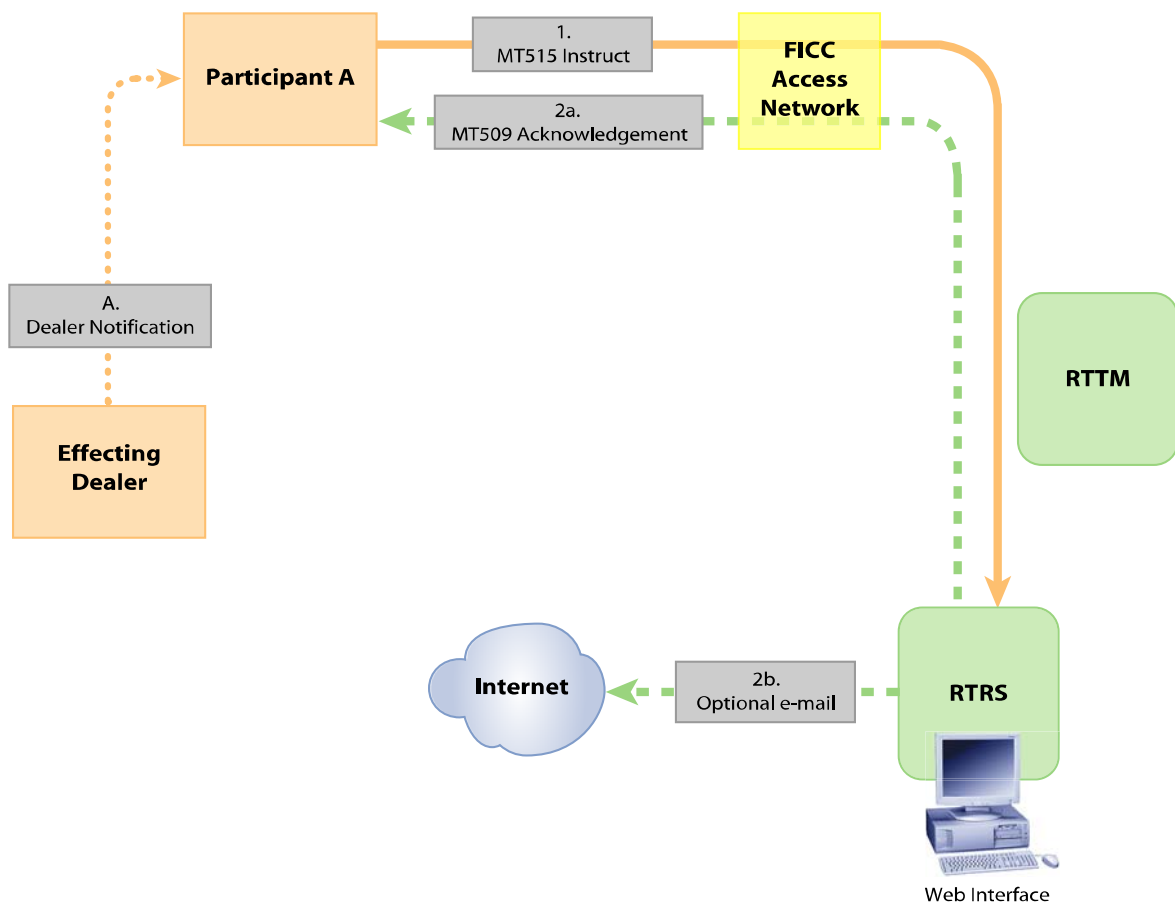
General Note for Appendix A

In all examples shown, RTTS continually displays the details and regulatory status of the trade on the Web Interface screen, where they are visible to all parties to the trade.

This fact is not repeated in the explanation of each example

Examples of Data Flows for Regulatory Reporting

C-1: Customer Trade Reported by Participant

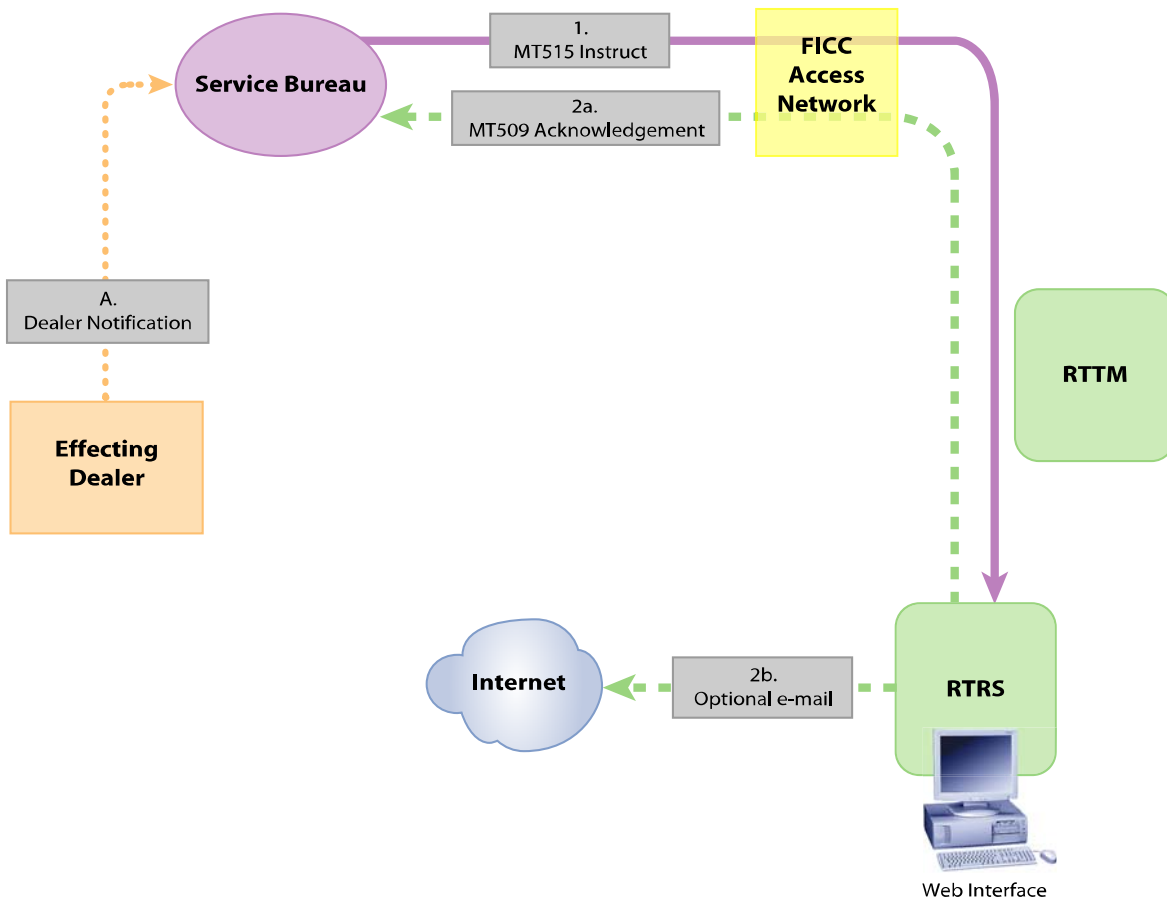


C-1: Customer Trade Reported by Participant via MQ

Message Flow Explanation:

- A. Outside of RTTM/RTRS systems – Effecting Dealer notifies Participant of customer trade.
 - 1. MT515 Instruct – This input message conveys the customer trade data submitted by Participant for regulatory reporting. The Participant sends the Instruct to the FICC Access Network, which timestamps it and routes it to RTRS.
 - 2a. MT509 Trade Accepted – This output message is sent to Participant-A acknowledging that its trade has been accepted by RTRS. In this example, the trade was reported on time and without errors. This message also provides the Regulator Control Number assigned by RTRS. The MT509 is sent to the Participant via the FICC Access Network.
 - 2b. E-mail – RTRS generates e-mail giving trade details and status, optionally available to both dealers via Internet.

C-2: Customer Trade Reported by Service Bureau via MQ



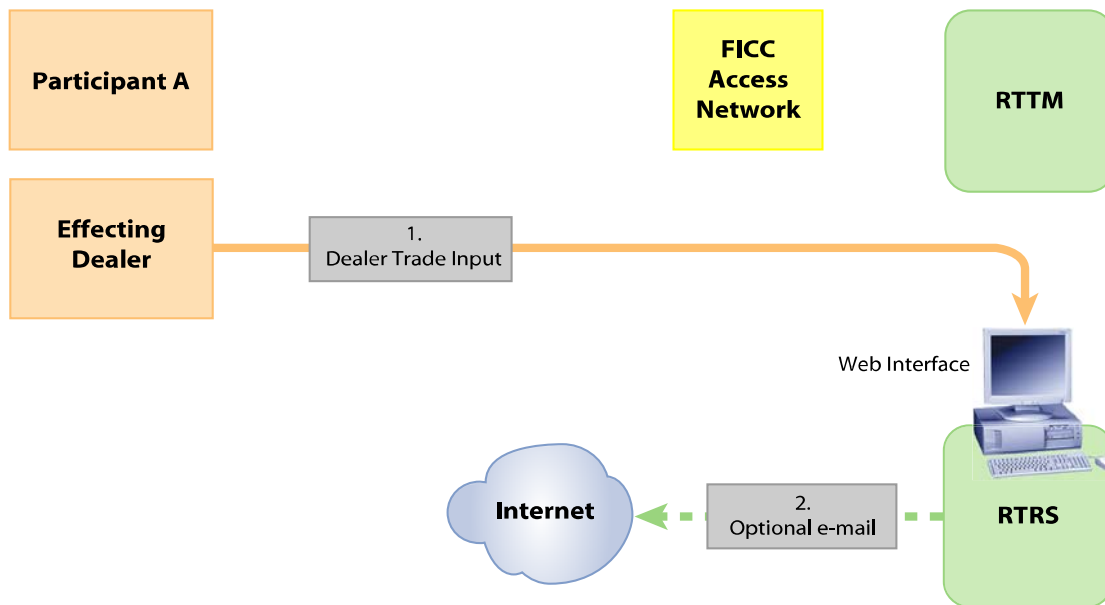


C-2: Customer Trade Reported by Service Bureau via MQ

Message Flow Explanation:

- A. Outside of RTTM/RTRS systems – Effecting Dealer notifies Service Bureau of customer trade.
 - 1. MT515 Instruct – This input message conveys the customer trade data submitted by Service Bureau for regulatory reporting. The Service Bureau sends the Instruct to the FICC Access Network, which timestamps it and routes it to RTRS.
 - 2a. MT509 Trade Accepted – This output message is sent to Service Bureau acknowledging that its trade has been accepted by RTRS. In this example, the trade was reported on time and without errors. This message also provides the Regulator Control Number assigned by RTRS. The MT509 is sent to the Service Bureau via the FICC Access Network.
 - 2b. E-mail – RTRS generates e-mail giving trade details and status, optionally available to dealer and Service Bureau via Internet.

C-3: Customer Trade Reported by Effecting Dealer via Web



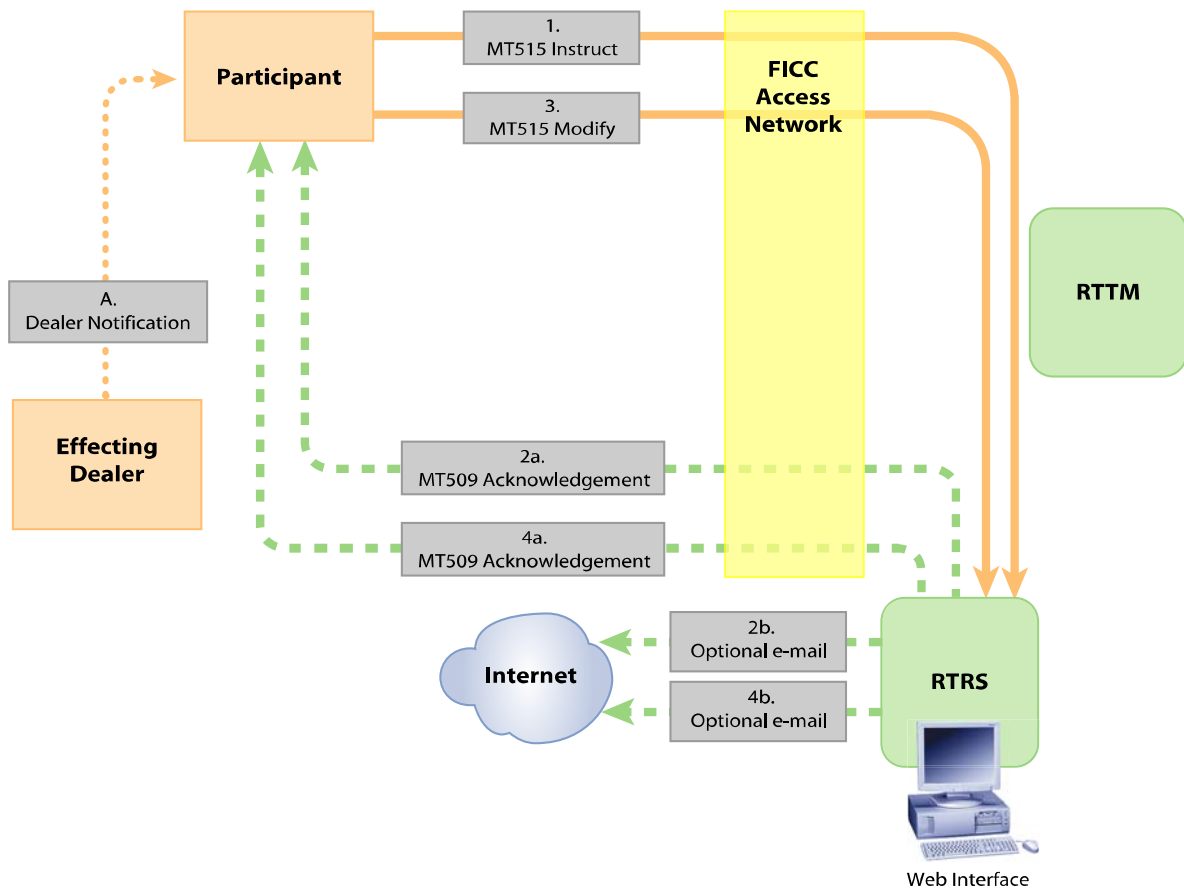


C-3: Customer Trade Reported by Effecting Dealer via Web

Message Flow Explanation:

1. Web Input – The Effecting Dealer enters the trade data into the RTTM Web Interface screen.
2. E-mail – RTRS generates e-mail giving trade details and status, optionally available to the Effecting Dealer via Internet.

C-4: Customer Trade Modified via MQ

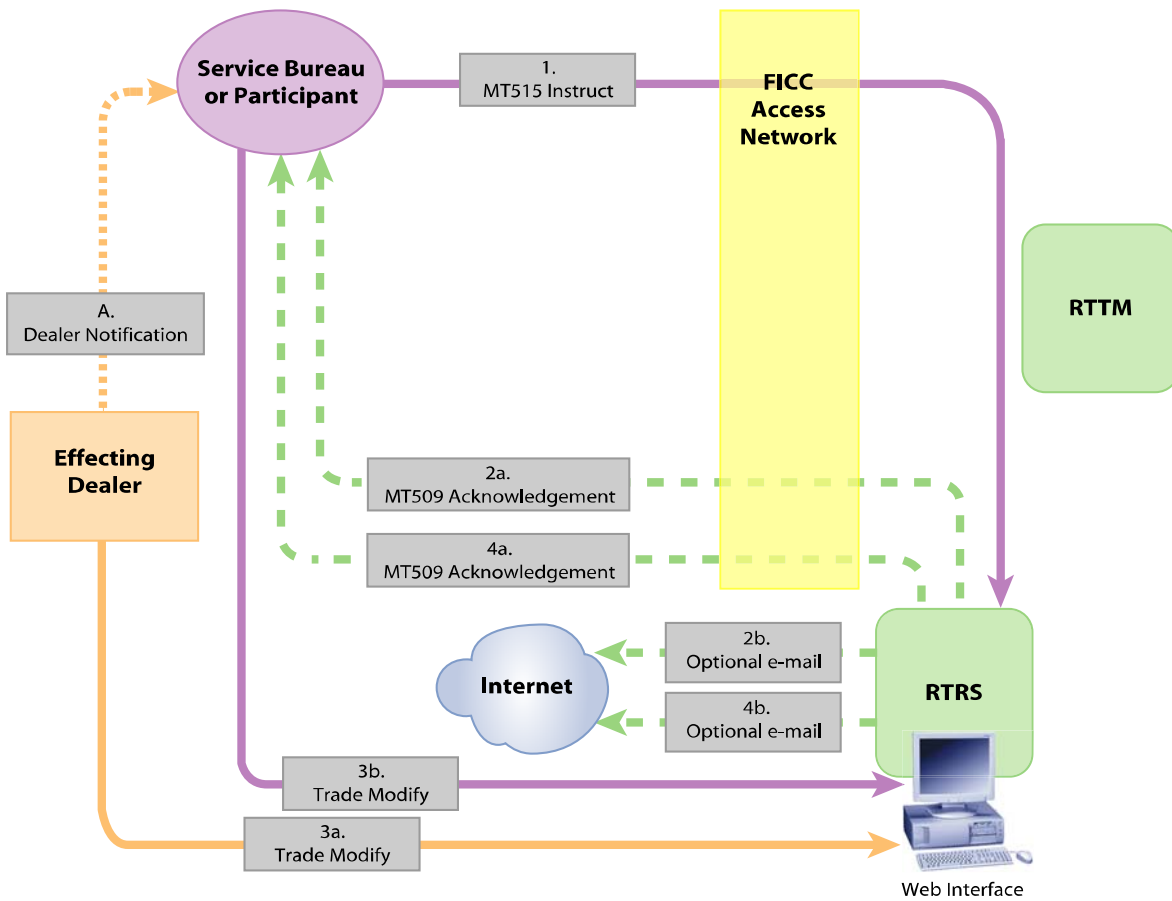


C-4: Customer Trade Modified via MQ

Message Flow Explanation:

- A. Outside of RTTM/RTRS systems – Effecting dealer notifies Participant or Service Bureau of customer trade.
 - 1. MT515 Instruct – This input message conveys the customer trade data submitted by Participant for regulatory reporting. The participant sends the Instruct to the FICC Access Network, which timestamps it and routes it to RTRS.
 - 2a. MT509 Trade Accepted (with errors) – This output message is sent to Participant acknowledging that its trade has been accepted by RTRS. In this example, RTRS found regulatory errors in the input. The MT509 contains an error code and text for each error in the input message. The MT509 also provides the Regulator Control Number assigned by RTRS. The MT509 is sent to the Participant via the FICC Access Network.
 - 2b. E-mail – RTRS generates e-mail giving trade details and status, optionally available to either dealer via Internet.
 - 3. MT515 Modify – The Participant conveys corrected trade data to RTRS.
 - 4a. MT509 Trade Accepted – This output message is sent to Participant acknowledging that its trade has been accepted by RTRS. RTRS now finds the trade error-free.
 - 4b. E-mail – RTRS generates e-mail giving trade details and status, optionally available to the Effecting Dealer via Internet.

C-5: Customer Trade Reported via MQ and Modified via Web



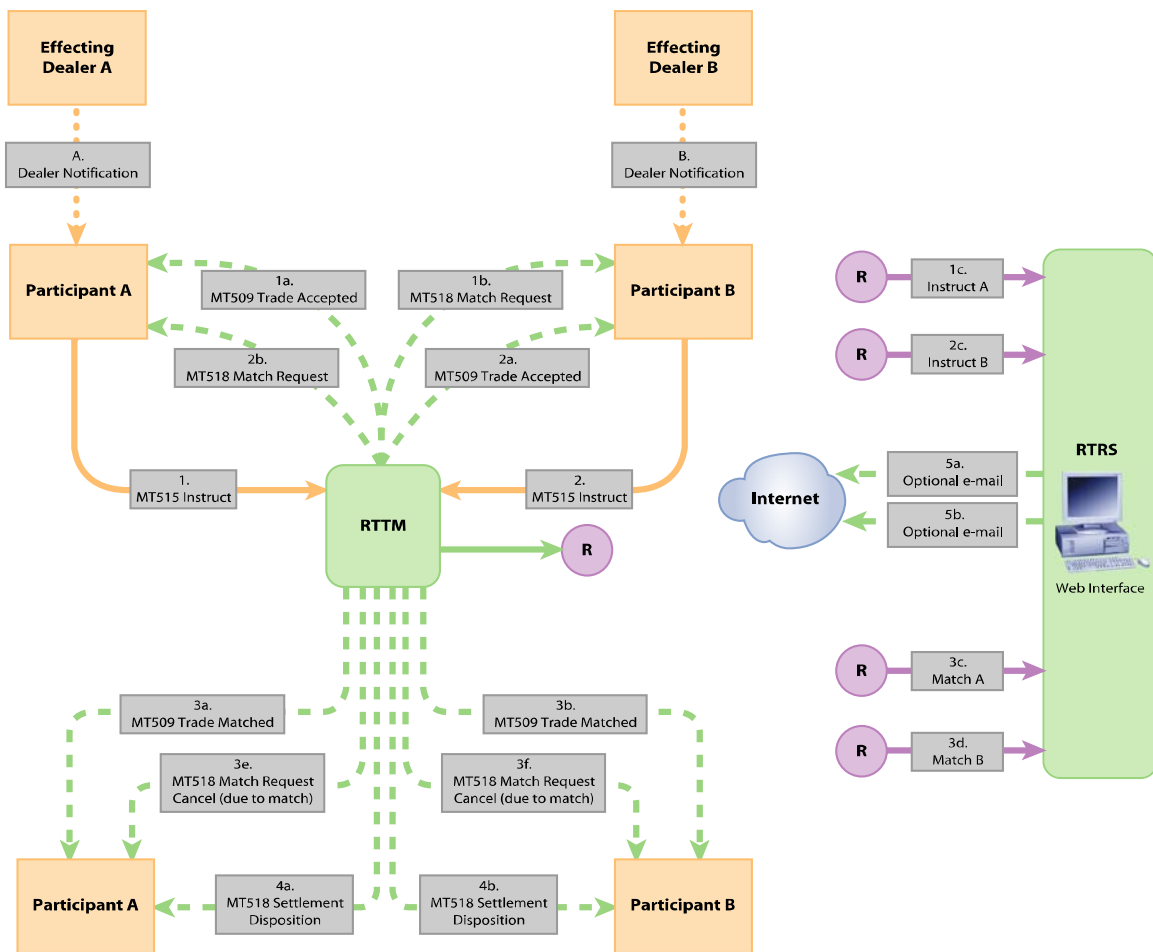
C-5: Customer Trade Reported via MQ and Modified via Web

Message Flow Explanation:

- A. Outside of RTTM/RTRS systems – Effecting dealer notifies Service Bureau (or Participant) of customer trade.
 - 1. MT515 Instruct – This input message conveys the customer trade data submitted by Service Bureau/Participant for regulatory reporting to RTRS. The participant sends the Instruct to the FICC Access Network, which timestamps it and routes it to RTRS.
 - 2a. MT509 Trade Accepted (with errors) – This output message is sent to Service Bureau/Participant acknowledging that its trade has been accepted by RTRS. In this example, RTRS found regulatory errors in the input. The MT509 contains an error code and text for each error in the input message. The MT509 also provides the Regulator Control Number assigned by RTRS. The MT509 is sent to the Service Bureau/Participant via the FICC Access Network.
 - 2b. E-mail – RTRS generates e-mail giving trade details and status, optionally available to the Effecting Dealer and Submitter via Internet.
 - 3a, 3b. Web Input – The Effecting Dealer or Service Bureau/Participant enters the correct trade data into the RTTM Web Interface screen. *Note:* The Effecting Dealer and the Submitter must coordinate changes between one another. RTRS accepts changes to customer trades via the Web from both the Effecting Dealer and the Submitter.
 - 4a. MT509 Trade Accepted – This output message is sent, via the Access Network, to the Service Bureau/Participant, acknowledging that its Modify has been accepted by RTRS. RTRS now finds the trade error-free.
 - 4b. E-mail – RTRS generates e-mail giving trade details and status, optionally available to the Effecting Dealer and Submitter via Internet.

S-1: Inter-dealer Trade Accepted, No Regulatory Errors

(Chart Depicts Bilateral Relationship of Parties to RTTM and RTRS)





S-1: Inter-dealer Trade Accepted, No Regulatory Errors

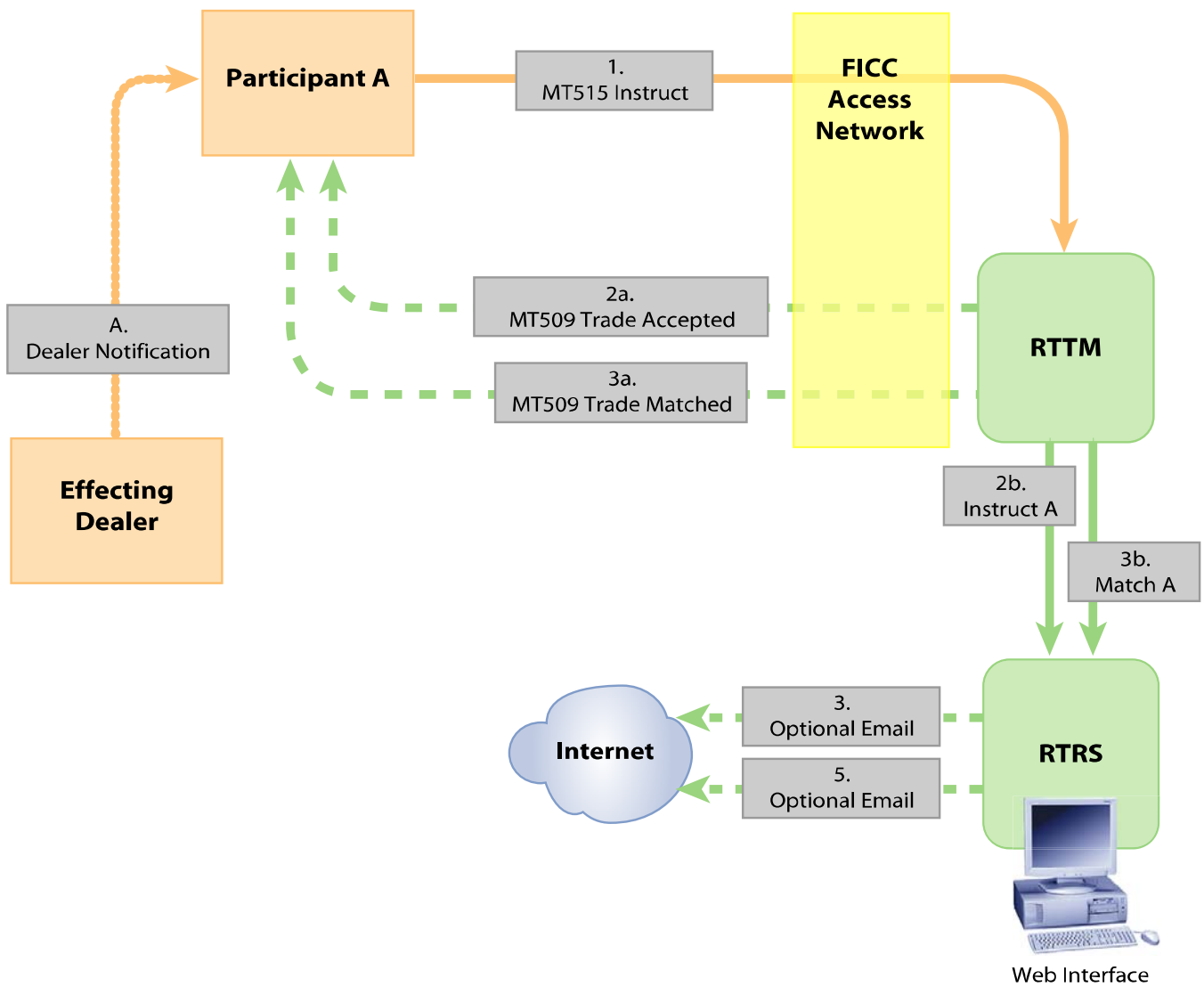
(Chart Depicts Bilateral Relationship of Parties to RTTM and RTRS)

Note: This is the only chart in this series that depicts the bilateral relationship of the parties to RTTM and RTRS. The following charts depict inter-dealer trades as seen by dealers on one side of the trade.

Message Flow Explanation:

- A, B. Outside of RTTM/RTRS systems – Effecting dealers notify Participants of inter-dealer trade.
- 1,2. MT515 Instruct – This input message conveys the trade data submitted by Participants for matching within RTTM and reporting to RTRS.
- 3a, 4a. MT509 Trade Accepted – This output message is sent to Participants acknowledging that their trade has been accepted by RTTM and is awaiting further processing. This message also provides the Transaction ID (TID) assigned by RTTM.
- 3b, 4b. Event Message – RTTM sends copies of Participant input to RTRS.
- 5a, 6a. MT509 Trade Matched – This output message is sent to Participants informing them that the trade is matched. This message also contains the Match Control Number.
- 8a, 8b E-mail to Internet – RTRS optionally sends an e-mail with the trade details and regulatory status to the Effecting Dealer and the Participant. E-mails are sent when RTTM is notified of the instruction (after 3a,b) and after the match (5a, 6a).

S-2: Inter-dealer Trade Accepted, No Regulatory Errors
 (Chart Depicts Relationship of One Side to RTTM/RTRS)





S-2: Inter-dealer Trade Accepted, No Regulatory Errors

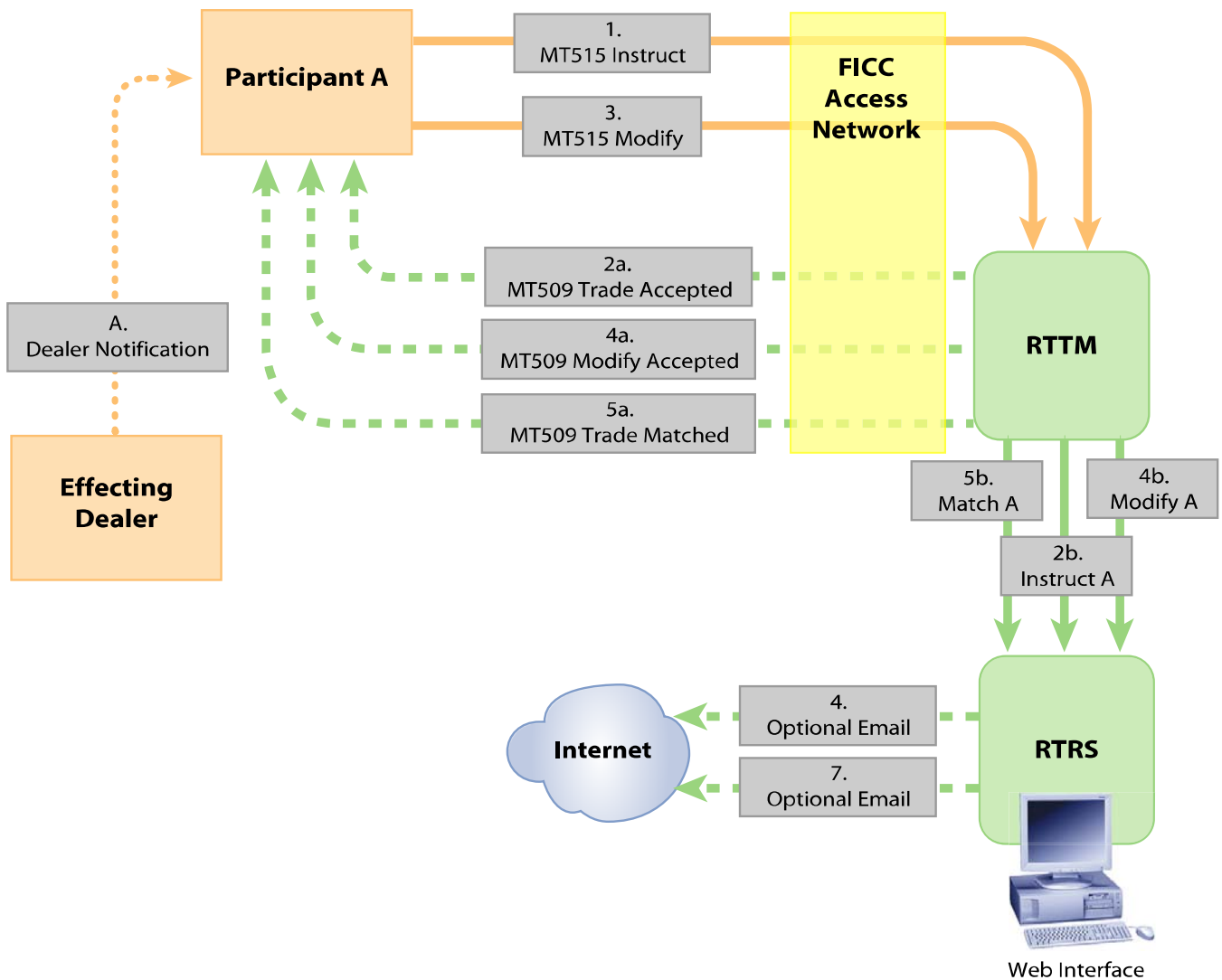
(Chart Depicts Relationship of One Side to RTTM/RTRS)

Note: This chart depicts same trade as the previous chart, but shows the relationship of dealers on one side of the trade to RTTM and RTRS. The following charts in this series show the same relationship.

Message Flow Explanation:

- A. Outside of RTTM/RTRS systems – Effecting Dealer notifies Participant of inter-dealer trade.
 1. MT515 Instruct – This input message conveys the trade data submitted by Participant for matching within RTTM and reporting to RTRS.
 - 2a. MT509 Trade Accepted – This output message is sent to Participant acknowledging that its trade has been accepted by RTTM and is awaiting further processing. This message also provides the Transaction ID (TID) assigned by RTTM.
 - 2b. Event Message – RTTM sends copy of Participant input to RTRS.
 3. E-mail to Internet – RTRS optionally sends an e-mail with the trade details and regulatory status to the Effecting Dealer and the Participant.
 - 4a, 4b. MT509 Trade Matched – This output message is sent to Participant informing it that the trade is matched. This message also contains the Match Control Number (COMM). A copy is sent to RTRS.
 5. E-mail to Internet – RTRS optionally sends an e-mail with the trade details and regulatory status to the Effecting Dealer and the Participant

S-3: Inter-dealer Trade Modified Pre-Match,
Changes to Match and Regulatory Data via MQ



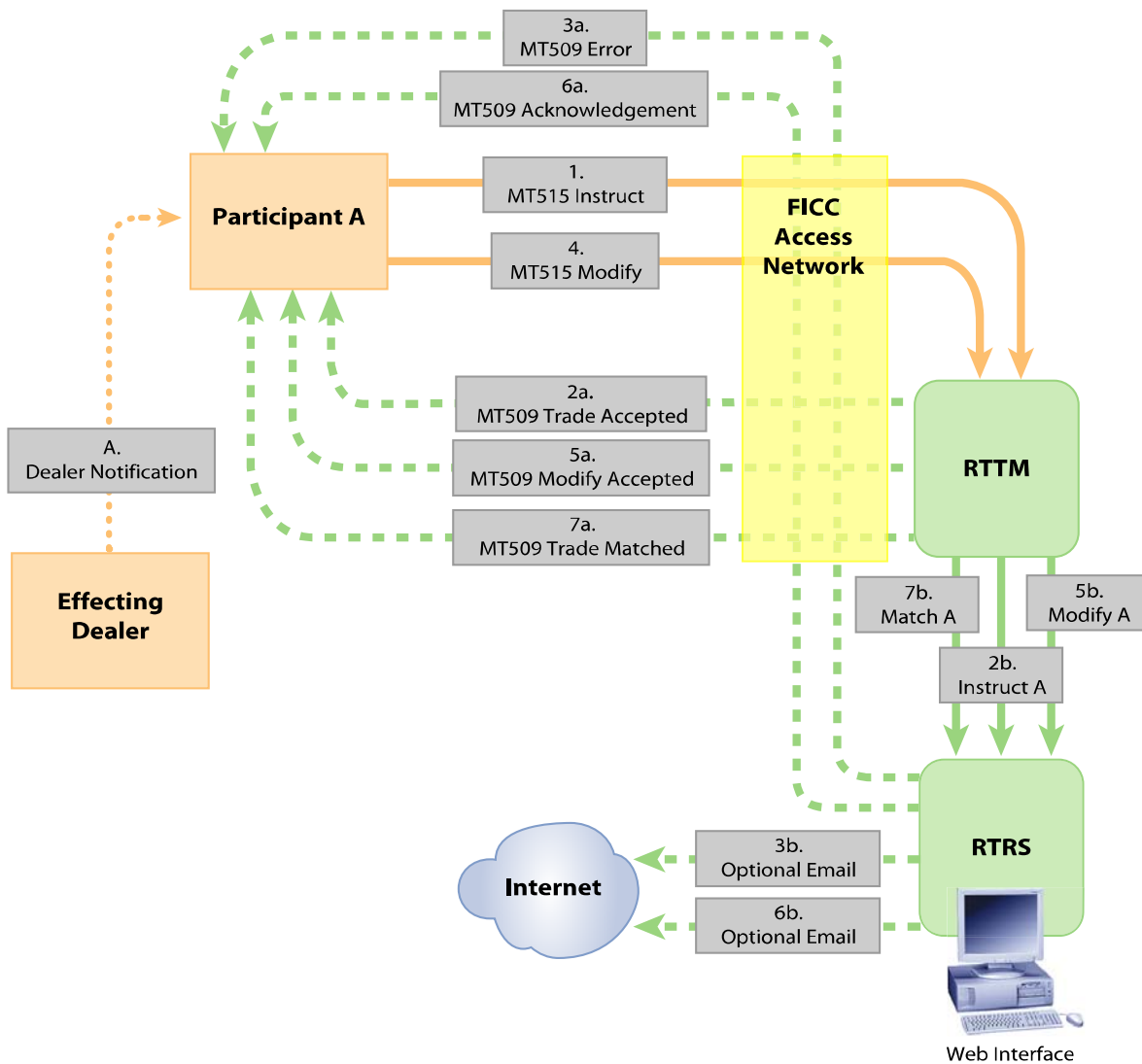
**S-3: Inter-dealer Trade Modified Pre-Match,
Changes to Match and Regulatory Data via MQ**

Message Flow Explanation:

- A. Outside of RTTM/RTRS systems – Effecting Dealer notifies Participant of inter-dealer trade.
 - 1. MT515 Instruct – This input message conveys the trade data submitted by Participant for matching within RTTM and reporting to RTRS.
 - 2a. MT509 Trade Accepted – This output message is sent to Participant acknowledging that its trade has been accepted by RTTM and is awaiting further processing. This message also provides the Transaction ID (TID) assigned by RTTM.
 - 2b. Event Message – RTTM sends copy of Participant input to RTRS.

In this scenario, the Participant or Effecting Dealer finds the error without RTRS sending an error message, e.g., the Dealer's Capacity was incorrectly reported. If RTRS had detected an error, the outbound flows as shown in S-4 would be seen.
 - 3. 515 Modify – This input message conveys a pre-match Modification submitted by Participant, correcting the error.
 - 4. E-mail to Internet – RTRS optionally sends an e-mail with the trade details and regulatory status to the Effecting Dealer and the Participant.
 - 5a. MT509 Modify Accepted – This output message is sent to Participant acknowledging that its Modify has been accepted by RTTM and is awaiting further processing.
 - 5b. Event Message – RTTM sends copy of Participant modify input to RTRS.
 - 6a, 6b. MT509 Trade Matched – At some later time, this output message is sent to Participant informing it that the trade is matched. This message also contains the Match Control Number (COMM). A copy is sent to RTRS.
 - 7. E-mail to Internet – RTRS optionally sends an e-mail with the trade details and regulatory status to the Effecting Dealer and the Participant.

**S-4: Inter-dealer Trade Modified While Trade is Still in RTTM,
 Changes to Regulatory Data Only - Modified via MQ**

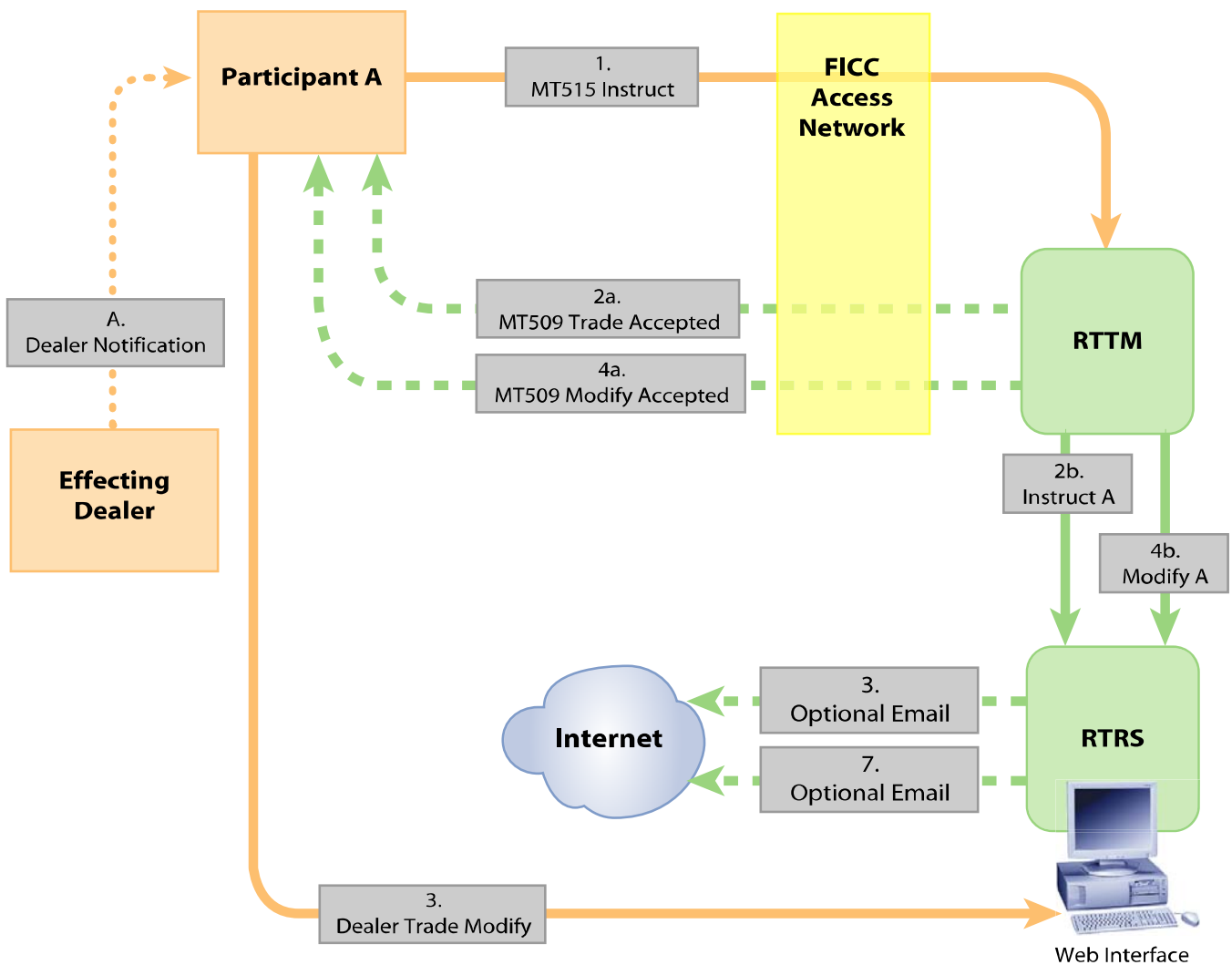


**S-4: Inter-dealer Trade Modified While Trade is Still in RTTM,
Changes to Regulatory Data Only - Modified via MQ**

Message Flow Explanation:

- A. Outside of RTTM/RTRS systems – Effecting dealer notifies Participant of inter-dealer trade.
 - 1. MT515 Instruct – This input message conveys the trade data submitted by Participant for matching within RTTM and reporting to RTRS.
 - 2a. MT509 Trade Accepted – This output message is sent to Participant acknowledging that its trade has been accepted by RTTM and is awaiting further processing. This message also provides the Transaction ID (TID) assigned by RTTM.
 - 2b. Event Message – RTTM sends copy of Participant input to RTRS.
 - 3a. MT509 Trade Rejected – RTRS sends MT509 to Participant noting problem with regulatory data (e.g., U41D – Dealer symbol not known to MSRB). Message is sent via Access Network but does not update RTTM.
 - 3b. E-mail – RTRS generates e-mail giving trade details and status, optionally available to the Effecting Dealer and Submitter via Internet.
 - 4. MT515 Modify – This input message conveys a pre-match Modify submitted by Participant, correcting the error in regulatory data. Participant directs message to RTTM (because trade is still in RTTM) and RTRS. RTTM stores the change to the regulatory data.
 - 5a. MT509 Trade Accepted – RTTM sends acknowledgement of error-free Modify to Participant.
 - 5b. Event Message – RTTM sends copy of Participant Modify input to RTRS. RTRS stores the change to the regulatory data.
 - 6a. MT509 Trade Accepted – RTRS sends acknowledgement of error-free Modify to Participant. *Note:* RTRS and RTTM both send MT509. RTRS sends a message to acknowledge that Participant has removed error that RTRS detected. RTTM sends a message to acknowledge message that Participant directed to it.
 - 6b. E-mail – RTRS generates e-mail giving trade details and status, optionally available to the Effecting Dealer and Submitter via Internet.
 - 7a, 7b. MT509 Trade Matched – At some later time, this output message is sent to Participant informing it that the trade is matched. This message also contains the Match Control Number (COMM). A copy is sent to RTRS.

**S-5: Inter-dealer Trade Modified Pre-Match,
Changes to Regulatory Data Only, Modification via Web Interface**



S-5: Inter-dealer Trade Modified Pre-Match,

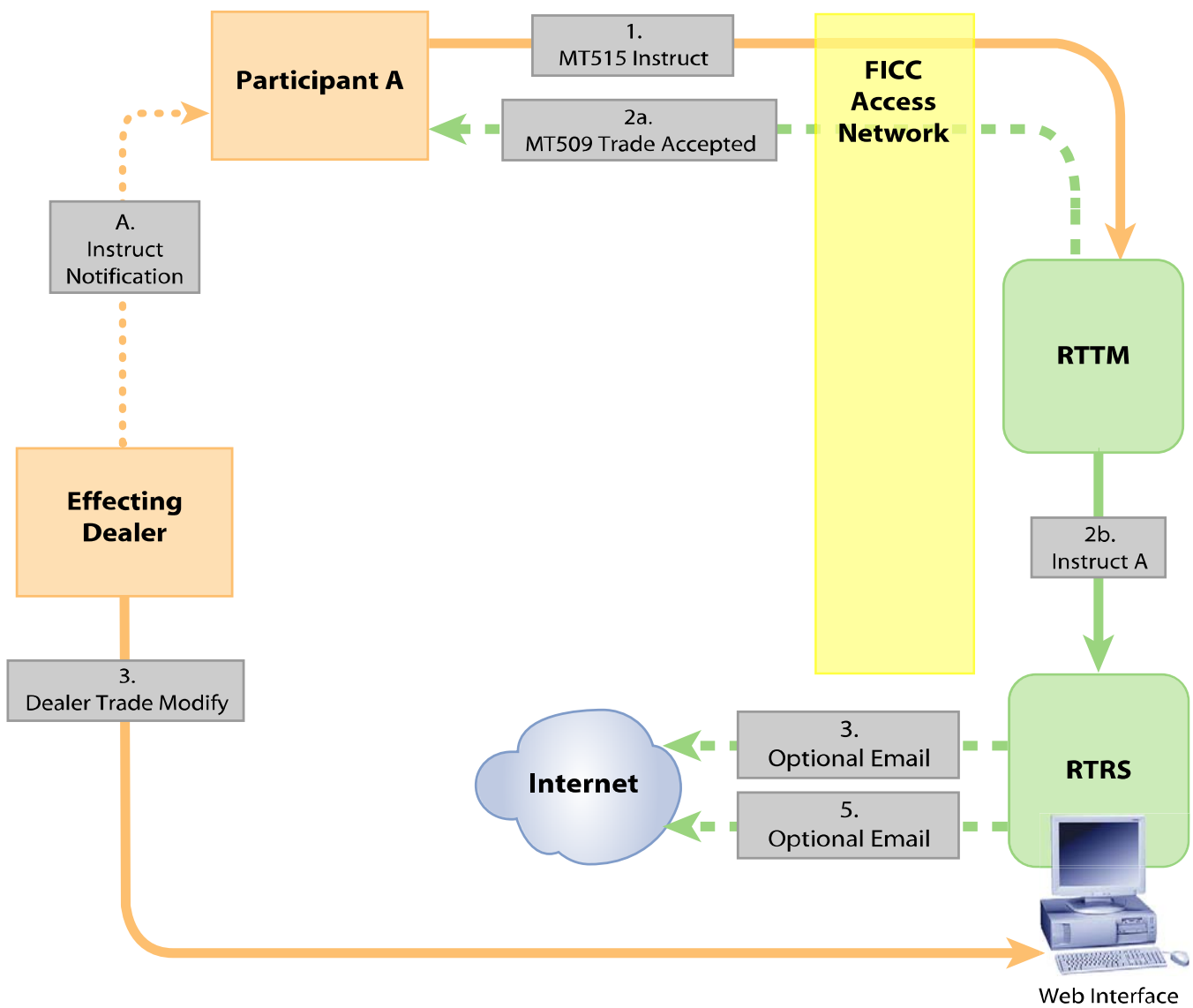
Changes to Regulatory Data Only, Modification by Participant via Web Interface

Message Flow Explanation:

- A. Outside of RTTM/RTRS systems – Effecting dealer notifies Participant of inter-dealer trade.
 - 1. MT515 Instruct – This input message conveys the trade data submitted by Participant for matching within RTTM and reporting to RTRS.
 - 2a. MT509 Trade Accepted – This output message is sent to Participant acknowledging that its trade has been accepted by RTTM and is awaiting further processing. This message also provides the Transaction ID (TID) assigned by RTTM.
 - 2b. Event Message – RTTM sends copy of Participant input to RTRS.
 - 3. E-mail to Internet – RTRS optionally sends an e-mail with the trade details and regulatory status to the Effecting Dealer and the Participant. *In this scenario, the Participant or Effecting Dealer finds the error without RTRS sending an error message, e.g., the Dealer's Capacity was incorrectly reported. If RTRS had detected an error, the outbound flows as shown in S-4 would be seen.*
 - 4. Web Input – The Participant modifies the trade data via the RTTM Web Interface screen. Participant directs Modify to RTTM and RTRS
 - 5. MT515 – The RTTM Web Interface generates an MT515 Instruct which is sent to RTTM.
 - 6a. MT509 Trade Accepted – RTTM sends acknowledgement of error-free Modify to Participant.
 - 6b. Event Message – RTTM sends copy of Participant input to RTRS.
 - 7. E-mail to Internet – RTRS optionally sends an e-mail with the trade details and regulatory status to the Effecting Dealer and the Participant.

S-6: Inter-dealer Trade Modified Pre-Match,

Changes to Regulatory Data, Modification by Effecting Dealer via Web Interface



S-6: Inter-dealer Trade Modified Pre-Match,

Changes to Regulatory Data, Modification by Effecting Dealer via RTRS Web Interface

Message Flow Explanation:

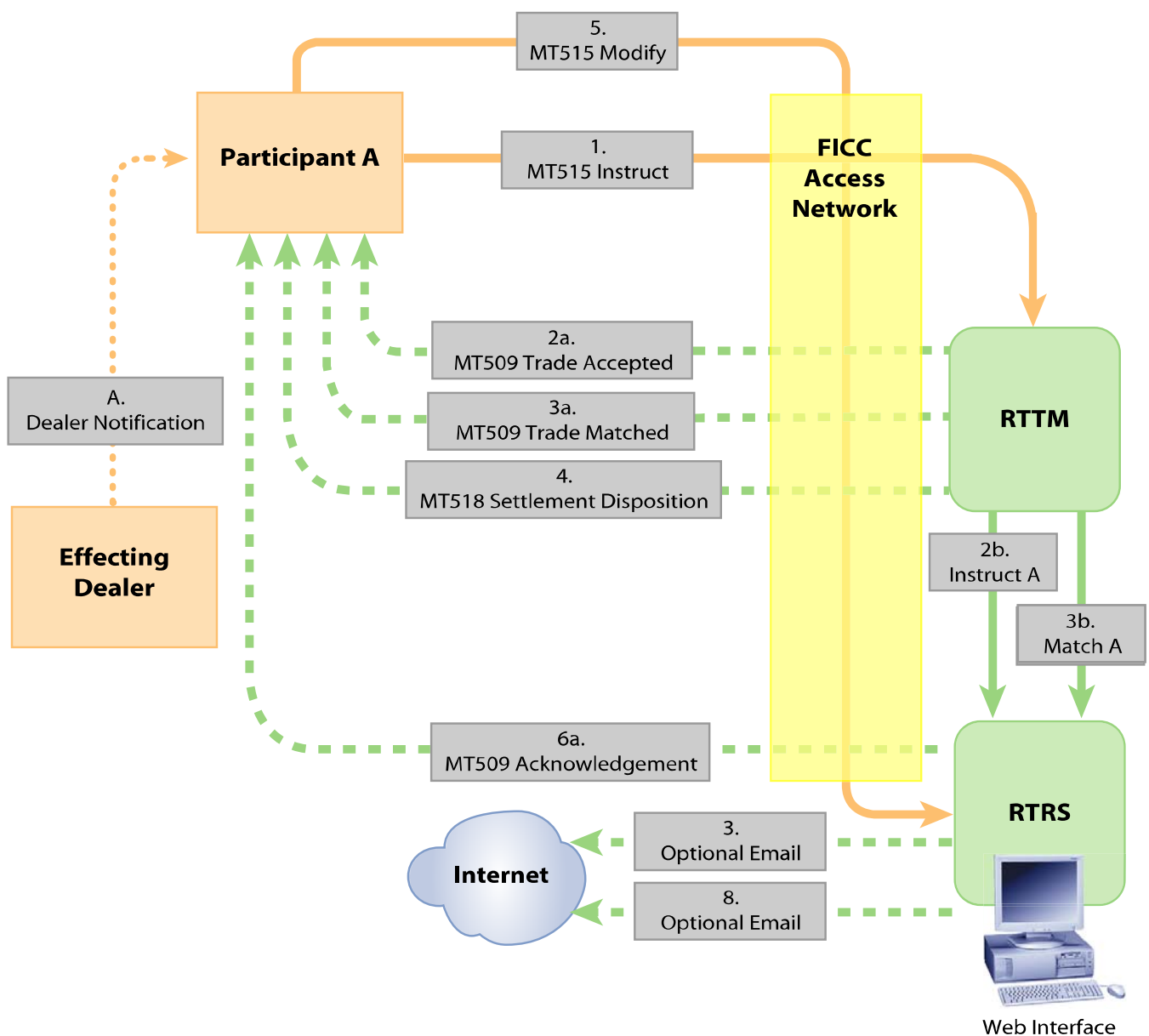
- A. Outside of RTTM/RTRS systems – Effecting dealer notifies Participant of inter-dealer trade.
 1. MT515 Instruct – This input message conveys the trade data submitted by Participant for matching within RTTM and reporting to RTRS.
 - 2a. MT509 Trade Accepted – This output message is sent to Participant acknowledging that its trade has been accepted by RTTM and is awaiting further processing. This message also provides the Transaction ID (TID) assigned by RTTM.
 - 2b. Event Message – RTTM sends copy of Participant input to RTRS.

In this scenario, the Effecting Dealer finds the error without RTRS sending an error message, e.g., the Dealer's Capacity was incorrectly reported. If RTRS had detected an error, the outbound flows as shown in S-4 would be seen.

3. E-mail to Internet – RTRS optionally sends an e-mail with the trade details and regulatory status to the Effecting Dealer and the Participant.
4. Web Input – The Effecting Dealer modifies regulatory trade data via the RTRS Web Interface screen. Only data needed for regulatory purposes is modified.
5. E-mail – RTRS generates e-mail giving trade details and status, optionally available to the Effecting Dealer and Participant via Internet.

Note: In this scenario, the regulatory data in RTTM has not been updated, because only the Participant can update RTTM. If the Effecting Dealer, outside the RTRS and RTTM systems, notifies the Participant of the regulatory data change, the Participant may submit an MT515 Modify directed to RTTM in order to update the RTTM data. However, it is not a regulatory requirement for regulatory data in RTTM and RTRS to be identical -- the requirement is that RTRS be accurate and up-to-date.

**S-7: Inter-dealer Trade Modified Post-Match and Post-Settle,
Modification to Regulatory Data Only, via MQ**



**S-7: Inter-dealer Trade Modified Post-Match and Post-Settle,
Modification to Regulatory Data Only, via MQ**

Message Flow Explanation:

- A. Outside of RTTM/RTRS systems – Effecting dealer notifies Participant of inter-dealer trade.
 - 1. MT515 Instruct – This input message conveys the trade data submitted by Participant for matching within RTTM and reporting to RTRS.
 - 2a. MT509 Trade Accepted – This output message is sent to Participant acknowledging that its trade has been accepted by RTTM and is awaiting further processing. This message also provides the Transaction ID (TID) assigned by RTTM.
 - 2b. Event Message – RTTM sends copy of Participant input to RTRS.
 - 3. E-mail to Internet – RTRS optionally sends an e-mail with the trade details and regulatory status to the Effecting Dealer and the Participant.
 - 4a, 4b. MT509 Trade Matched – In parallel with RTRS processing, this output message is sent by RTTM to Participant and RTRS informing them that the trade is matched. This message also contains the Match Control Number.
 - 5. MT518 Settlement Disposition – This output message is sent to Participant informing it of the trade's anticipated Settlement Date or Contractual Settlement Date, at which time the trade will be purged from RTTM.
 - 6. MT515 Modify – After the trade's anticipated Settlement Date or Contractual Settlement Date, this input message conveys a post-match Modification submitted by Participant, correcting an error in regulatory data. Participant directs message to RTRS only (since trade is no longer on RTTM). *See note.*
 - 7. MT509 Trade Accepted – RTRS sends acknowledgement of error-free Modify to Participant.
 - 8. E-mail – RTRS generates e-mail giving trade details and status, optionally available to the Effecting Dealer and Participant via Internet.

NOTE: The Effecting Dealer can also make a post-match modification to regulatory data, but the input must be via the RTRS Web Interface as in S-6.



Appendix B: Code Tables



APPENDIX B.1: RTRS ERROR CODES

Code	Text
U01B	UNSAT Dealer reference number missing
U01C	UNSAT Dealer reference number bad format
X01G	UNSAT Trade Report has dealer reference number already in use
Q111	QUEST Dollar price calculated from submitted yield differs from submitted price
Q112	QUEST Dollar price calculated from submitted yield equals premium call not lowest
Q113	QUEST Dollar price calculated from submitted yield equals par call not lowest
Q114	QUEST Dollar Price calculated from submitted yield equals maturity date not lowest
Q115	QUEST Dollar Price calculated from submitted yield equals ETM and lower price by call date exists
Q116	QUEST Dollar Price calculated from submitted yield equals pre-refunded date and lower call exists
Q11B	QUEST Dollar price missing for regular way CUSIP
Q11E	QUEST Dollar price out of reasonable range
U11B	UNSAT Dollar price missing
U11C	UNSAT Dollar price in wrong format
U11E	UNSAT Dollar price less than \$0.00
Q12B	QUEST Yield missing for possible RW CUSIP
Q12E	QUEST Yield out of reasonable range
Q12H	QUEST Yield present on possibly defaulted issue
U12B	UNSAT Yield missing
U12C	UNSAT Yield in wrong format



**SPECIFICATIONS FOR REAL-TIME REPORTING OF MUNICIPAL SECURITIES TRANSACTIONS
APPENDIX B: CODE TABLES**

Code	Text
U191	UNSAT Yield greater than dollar price
Q14F	QUEST Calculated accrued interest does not match submitted accrued interest.
Q141	QUEST No accrued interest submitted, and trade not indicated as having been traded flat.
Q14H	QUEST Accrued interest submitted, but trade indicated as having been traded flat.
Q192	QUEST Commission more than 10% of dollar price
U15C	UNSAT Commission in wrong format
Q15H	QUEST Commission present on principal trade
Q15H	QUEST Commission present on inter-dealer trade
U16H	UNSAT Concession present on customer trade
Q16H	QUEST Concession present on IDRO trade
U211	UNSAT Cannot modify trade date. Unless otherwise noted, any other modifications have been applied.
U212	UNSAT Trade date in the future
U21B	UNSAT Trade date missing
U21C	UNSAT Trade date wrong format
Q221	QUEST Trade time in the future
Q22B	QUEST Time of trade missing
Q22C	QUEST Time of trade invalid format
Q22E	QUEST Time of trade before 0600 or after 2100
Q22F	QUEST Seller and buyer times of trade differ by more than 15 minutes
U231	UNSAT Settlement date is before trade date
U23C	UNSAT Settlement date is not in date format
Q331	QUEST Par value not a multiple of \$1000



**SPECIFICATIONS FOR REAL-TIME REPORTING OF MUNICIPAL SECURITIES TRANSACTIONS
APPENDIX B: CODE TABLES**

Code	Text
U33B	UNSAT Par value missing
U33C	UNSAT Par value wrong format
U41B	UNSAT Dealer symbol missing
U41C	UNSAT Dealer symbol wrong format
U41D	UNSAT Dealer symbol not known to MSRB
U42D	UNSAT Clearing ID not known to MSRB
U43D	UNSAT Submitter not known to MSRB
Q44F	QUEST The contra-party you indicated is not the contra party on the matching side.
U44D	UNSAT Unknown contra-party broker symbol
U47D	UNSAT Intermediate dealer symbol not known to MSRB
Q491	QUEST Unknown dealer/submitter combination
Q49D	QUEST Unknown dealer/clearing combination
U13B	UNSAT CUSIP not present
U13F	UNSAT CUSIP check digit incorrect
X51E	UNSAT Market of execution not Muni (OTMU)
U52B	UNSAT Dealer capacity missing
U52D	UNSAT Dealer capacity wrong value
U53B	UNSAT Buy/sell indicator missing
U53D	UNSAT Buy/sell indicator wrong value
N90A	No regulatory data changed. Any previous errors still stand
U901	UNSAT Cannot modify match items with regulatory only modify.
X901	UNSAT Cannot submit to RTRS a regulatory only modify prior to a match. Resubmit to RTTM.
U311	UNSAT Cannot change CUSIP



Code	Text
N911	LATE Instruction received more than 90 days after TD. No Dealer Response Requested.
N912	LATE Instruction received more than 1 year after trade date. No Dealer response requested.
N913	LATE Trade reported more than 15 minutes after time of trade
X921	UNSAT Modify or cancel does not match any stored side
X922	UNSAT Modify or cancel received for side already canceled
X93A	UNSAT Unparsable MT515 message
U641	UNSAT IDRO trade but trade indicator is not Locked-In
U642	UNSAT Customer trade but trade indicator is not Cash
U06B	UNSAT Trade marked as reversal but Reversal Control Number absent
S99A	SATIS Acknowledgment: no error conditions found

APPENDIX B.2: OTHER RTRS CODE TABLES

Special Price Reason Codes

Special Price Reason Codes (used on MT515 and MT518 in field :70E::TPRO//GSCC/SPXR)	Special Price Reasons
R001	Traded Flat
R002	Settlement other than Regular Way Impacted Price
R003	Multiple Reasons for Special Price
R004	Other

The MSRB may in the future establish additional Special Price Reason Codes for common situations. All Special Price Reason Codes will be available on the MSRB's Web Site, www.msrb.org

ATS Identifier Codes

ATS Identifier (used on MT515 and MT518 in field :70E::TPRO//GSCC/ATME)	ATS Identifier Codes
	Any dealer registered with the SEC as an Alternative Trading System should complete the appropriate section of the MSRB's Form RTRS. The MSRB will assign an ATS identifier.



	ATS codes will be available on the MSRB Web site, www.msrb.org
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Message Originator (MEOR) Codes

MEOR Identifier (used on MT515 and MT518 in field :95Q::MEOR//)	MEOR Identifier Codes
	Organizations that submit trade reports to the MSRB System should complete the appropriate section of the MSRB's Form RTRS. The MSRB will assign originator codes.

APPENDIX B.3: RTTM CODES³⁰

Message Reject Reason Codes

Reject Error Code Qualifiers (to be used on MT509) in field :24B::REJT/	Error Conditions Which Can Cause an MT515 to be Rejected by RTTM
GSCC/E001	External Reference Error
GSCC/E002	Previous External Reference Error
GSCC/E003	Trade Not Eligible For Cancellation
GSCC/E004	Unknown Security
GSCC/E005	Bad Quantity
GSCC/E006	Bad Trade Date
GSCC/E007	Bad Settlement Date
GSCC/E008	Bad Price
GSCC/E009	Bad Amount
GSCC/E010	Bad Buyer Party
GSCC/E011	Bad Seller Party
GSCC/E012	Broker Reference Number Error
GSCC/E013	Transaction Type Error
GSCC/E014	Price Method Error
GSCC/E015	Commission Error
GSCC/E016	Password Error

³⁰ It should be noted that while most of the codes contained in these tables are used to support GSCC, MBSCC and NSCC RTTM, some codes are used only by one clearing corporation, and may not be used by the other.



SPECIFICATIONS FOR REAL-TIME REPORTING OF MUNICIPAL SECURITIES TRANSACTIONS
APPENDIX B: CODE TABLES

Reject Error Code Qualifiers (to be used on MT509) in field :24B::REJT/	Error Conditions Which Can Cause an MT515 to be Rejected by RTTM
GSCC/E017	Buyer Executing Firm Error
GSCC/E018	Seller Executing Firm Error
GSCC/E019	Start Amount Error ³¹
GSCC/E020	Start Date Error ²
GSCC/E021	End Amount Error ²
GSCC/E022	End Date Error ²
GSCC/E023	Repo Rate Error ²
GSCC/E024	Secondary X-ref Error ²
GSCC/E025	Substitution Type Error ²
GSCC/E026	Substitution Number Error ²
GSCC/E027	Substitution Collateral Error ²
GSCC/E028	Substitution Variance Error ²
GSCC/E029	Substitution Frequency Error ²
GSCC/E030	Trade Not in Same State
GSCC/E101	Give Up Period Error ²
GSCC/E102	Trade Service Type Error ²
GSCC/E103	Option Type Error ²
GSCC/E104	Option Expiry Date Error ²
GSCC/E105	Account Trade Restricted ²
GSCC/E201	ABS Turnaround Number Error
GSCC/E202	Market of Execution Error
GSCC/E203	Trade Type/Target Indicator Error
GSCC/E204	Destination Indicator Error
GSCC/E205	Inconsistent Recipient Information
GSCC/E206	Issue Type Error
GSCC/E207	Settlement Date Adjustment Error
GSCC/E208	Settlement Type Error
GSCC/E209	Interest Error
GSCC/E210	Concession Error
GSCC/E211	Branch Sequence Number Error
GSCC/E212	Unknown Target Application
GSCC/E998	Trade Not Found
GSCC/E999	Other Bad Data
GSCC/F001	Illegal Operation Attempted
GSCC/F002	Internal Process Error
GSCC/F999	Non-SWIFT Compliant Message

³¹ Supports only GSCC and MBSCC products.



² Supports only GSCC and MBSCC products.

DK Reason Codes³²

DK Reason Codes (to be used on MT515 and MT518 in field :70E::TPRO//GSCC/DKRS)	DK Reasons
E004	Unknown Security
E005	Bad Quantity
E006	Bad Trade Date
E007	Bad Settlement Date
E008	Bad Price
E009	Bad Amount
E010	Bad Buyer Party
E011	Bad Seller Party
E013	Transaction Type Error
E014	Price Method Error
E015	Commission Error
E017	Buyer Executing Firm Error
E018	Seller Executing Firm Error
E019	Start Amount Error ³³
E020	Start Date Error ⁴
E021	End Amount Error ⁴
E022	End Date Error ⁴
E023	Repo Rate Error ⁴

³² It should be noted that while most of the codes contained in these tables are used to support GSCC, MBSCC and NSCC RTTM, some codes are used only by one clearing corporation, and may not be used by the other.

³³ Supports only GSCC and MBSCC products.



**SPECIFICATIONS FOR REAL-TIME REPORTING OF MUNICIPAL SECURITIES TRANSACTIONS
APPENDIX B: CODE TABLES**

DK Reason Codes (to be used on MT515 and MT518 in field :70E::TPRO//GSCC/DKRS)	DK Reasons
E025	Substitution Type Error ⁴
E026	Substitution Number Error ⁴
E027	Substitution Collateral Error ⁴
E028	Substitution Variance Error ⁴
E029	Substitution Frequency Error ⁴
E100	Unknown Cancel
E101	Give Up Period Error ⁴
E102	Trade Service Type Error ⁴
E103	Option Type Error ⁴
E104	Option Expiry Date Error ⁴
E106	Incorrect Account Symbol
E107	Duplicate Trade
E201	ABS Turnaround Number Error
E202	Market of Execution Error
E203	Trade Type/Target Indicator Error
E206	Issue Type Error
E207	Settlement Date Adjustment Error
E208	Settlement Type Error
E209	Interest Error
E210	Concession Error
E211	Branch Sequence Number Error
E998	Trade not found
E999	Other Bad Data



Message Reason Codes

Message Reason Codes (to be used on MT518 in field :70E::TPRO//GSCC/MSGR)	Message Reasons
DKTD	Due to DK
DCTD	Due to DK Remove
MACH	Due to Match
COAC	Due to Contra Action
GSAC	Due to RTTM Action
YRAC	Due to your Action

Destination Codes

Destination Codes (to be used in field :70E::TPRO//GSCC/DEST)	Destination
01	RTTM
02	MSRB
03	NASD

Issue Type

Issue Type Codes (to be used in field :70E::TPRO//GSCC/ITYP)	Issue Type
SY	Syndicate Trade
TS	Target Syndicate Trade
RW	Regular Way (ABS only)
NI	New Issue (ABS only)

Settlement Disposition Codes

Settlement Disposition Codes (to be used in field :70E::TPRO//GSCC/SDSP)	Settlement Disposition Method
CNSE	CNS Eligibility
CNSN	Not CNS
CPRO	Comparison Only
TFTD	Trade for Trade