



BOXSM
O P T I O N S

Informational Circular

IC-2022-30

TO: BOX Options Participants
FROM: BOX Market Operations Center
SUBJECT: Automated Trade Reporting ("ATR") Protocol Version A2
DATE: October 7, 2022

Overview

The purpose of this circular is to introduce **ATR Protocol Version A2** which contains the following features compared to the previous ATR Versions A0 and A1:

1. Decommission "As-Of" type business messages with alternative replacement
2. Enhanced Login with password encryption
3. Expanded Message Sequence Number
4. New fields in business messages to ensure message uniqueness
5. New Error management
6. New Participant messages for post-trade operations

Other than the changes detailed above, there are no other differences from the previous ATR Protocol Versions.

Updated documentation for the **ATR Protocol – Version A2, ATR-BX-001E BOX SOLA ATR Specifications v4.0**, can be found on the [BOX Options website](#).

The above features will be effective on **October 10th, 2022**

Features of the ATR Protocol Version A2

1. Decommission "As-Of" type business messages with alternative replacement

The following "As-of" type messages have been decommissioned in the ATR Protocol Version A2:

- Message Type 35 – As of Trade
- Message Type 36 – As of Trade Cancellation
- Message Type 45 – As of Trade Allocation
- Message Type 46 – As of Trade Allocation Cancel
- Message Type 55 – As of Give-Up
- Message Type 56 – As of Give-Up Cancel

These decommissioned messages are replaced as shown in the table below:

Decommissioned Messages	Replaced by Messages with field TradeType 'A' (As-Of)
Message Type 35 – As of Trade	Message Type 30 – Trade
Message Type 36 – As of Trade Cancellation	Message Type 31 – Trade Cancel
Message Type 45 – As of Trade Allocation	Message Type 40 – Allocation
Message Type 46 – As of Trade Allocation Cancel	Message Type 41 – Allocation Cancel
Message Type 55 – As of Give-Up	Message Type 50 – Give-Up
Message Type 56 – As of Give-Up Cancel	Message Type 51 – Give-Up Cancel

2. Enhanced Login with password encryption

New fields are added to **Message Type 09 - Client Signon** as follows:

- *Username*
- *Time* (at which message is sent)
- *Password* (using MD5 Encryption)

Participants who wish to connect to the ATR-server using the new A2 protocol are required to first contact the BOX Market Operations Center (“MOC”) to have a Username and Password configured and assigned to them. The ATR Protocol Version A2 supports multiple users per Firm, but each user must be configured their own Username and Password.

The Client Signon (Message Type 09) requires both a valid *Username* and *Password* which is encoded in MD5 using the *Time* field. The procedure for password encryption is detailed in **Section 7** of the ATR-BX-001E BOX SOLA ATR Specifications v4.0.

New Message Type 10 - Client Signon Acknowledgement

This new message is returned to the ATR-Participant upon a successful authentication by the ATR-server.

3. Expanded Message Sequence Number

The current Sequence Number is expanded from the current 6-digit sequence to an 8-digit sequence to support up to 99999999 messages

Impacts:

- **ATR Header**
 - o Fields *Sequence Number* and *Ack Sequence Number*

NOTE: Since all ATR messages use the ATR Header, all messages are impacted by this change.
- **Message Type 04 - Restart Request**
 - o Field *Restart Sequence Number*
- **Message Type 05 - Client Signon**
 - o Field *Initial Sequence Number*

4. New Fields in Business Messages for Message Uniqueness

New fields *Unique Transaction Id* and *Parent Transaction Id* are added to the following messages:

- Message Type 30 - Trade
- Message Type 31 - Trade Cancel
- Message Type 40 - Allocation
- Message Type 41 - Allocation Cancel
- Message Type 50 - Give-Up
- Message Type 51 - Give-Up Cancel

- ***Unique Transaction Id***

- o This field represents a unique identifier for a business message such as Trade, Allocation and Give-Up (and their corresponding Cancels) messages in the ATR Feed. The *Unique Transaction Id* is unique per day and is reset on the next business day.
- o The *Unique Transaction Id* for a “Cancel” message type is the same as the original message which was cancelled.
 - For example, the *Unique Transaction Id* of a Trade Cancel message is the same as its original Trade message. The same applies for an Allocation message and its Allocation Cancel message and a Give-Up message and its Give-Up Cancel message.

- ***Parent Transaction Id***

- o This field is a unique message that ties an Allocation message, Allocation Cancel message, Give-Up message or Give-Up Cancel message to the parent Trade under which it was created.
 - This field is populated with '0' (zero) for a Trade message and Trade Cancel message.

5. New Error Management

New fields are added to **Message Type 99 – Error Message** as follows:

- *Reference Message Type*
- *Error Code*

- *Reference Message Type* indicates the input message which caused the error.
- *Error Code* indicates the type of error generated.

6. New Participant Messages for Post-Trade Operations (future phase)

New Messages	Purpose
Message Type 42 – New Allocation	Create an Allocation under an existing Trade
Message Type 43 – Modify Allocation	Modify the terms of an existing Allocation
Message Type 44 – Delete Allocation	Delete or Cancel an existing Allocation
Message Type 52 – New Give-Up	Give-up a Trade to another firm
Message Type 53 – Modify Give-Up	Modify the terms of an existing Give-Up
Message Type 54 – Delete Give-Up	Delete or Cancel an existing Give-Up

The above messages are published in the **ATR-BX-001E BOX SOLA ATR Specifications v4.0** document.

- Section 3.5 details the message structure and field definitions
- Section 5 of the document illustrates the relationship keys between business messages
- Section 6 illustrates the Business Message Sequences for:
 - o Trade processing
 - o Allocation processing
 - o Give-Up processing

The above messages will be activated at a future date and a separate Informational Circular will be published before implementation. ATR Participants wishing to implement these messages in their application can use the above references for development prior to the implementation date.

Contacts

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