BME
BOLSAS Y MERCADOS ESPAÑOLES
a SIX company

HF MEFFGate FIX M5.15

MEFF FIX protocol interface specifications / 23/11/2022

Changes made in the latest revision

Outlined below are the main changes made in the version M5.15 (since the public information of version M5.13 on 27 September 2022):

- Market Data Snapshot Full Refresh: new User field RetailClFlag [21507] for Retail prices is added

Tabla de contenido

1 Introduction

1.1 Scope of this manual

This document contains the definition of the MEFF trading system interface provided by MEFF for developing external applications. The interface is based on version 5.0 of the FIX Protocol standard (Financial Information exchange). More detailed information about the standard can be found in reference document 1 (see 1.5) or on the website www.fixprotocol.org.

The interface follows the FIX 5.0 specifications, as far as possible. In the majority of cases the structure and semantics of the messages are identical to the standard.

In some cases, the protocol has been extended to cover functions not considered by the standard. These extensions are clearly detailed in the document.

In other cases, the standard is ambiguous or indicates that the details should be mutually defined by the parties. In these cases the manual provides a detailed description to avoid any possible ambiguity.

All annotations and adaptations of the standard have been done in accordance with the recommendations in the standard.

To avoid possible duplication in the sources of information, this document does not include explanations of those matters that comply exactly with the standard. Therefore, the standard documentation should be considered as the main source of information for any matter that is not explicitly covered in this manual.

This is a reference document for those Members and ISVs that wish to develop software that can process market data using the HF MEFFGate server FIX interface.

1.2 Public information

The following table displays the public functions and their related messages.

Public function	Related messages
Obtain session status	Trading Session Status Request
	Trading Session Status
Obtain information on securities	Security List Request
	Security List
	Security List Update Report
	Security Status Request
	Security Status
Obtain information on prices	Market Data Request
	Market Data Request Reject
	Market Data – Snapshot / Full Refresh
Obtain information about RFQ	Indication of Interest
Receive information from the Market Supervisor	News

1.3 Structure of manual

The manual is divided into two parts. The first part, containing the first four chapters, gives a description of generic features of this interface.

This first chapter describes the scope of the document, its structure and introduces the related documents.

Chapter 2 "Implementation decisions" presents those annotations or restrictions arising from the implementation of the protocol defined in this manual.

Chapter 3 "FIX Session" describes those aspects related to the session level, including the detailed description of the corresponding messages.

Chapter 4 "General conventions in application messages" describes in detail specific aspects that affect the majority of the messages described in this manual.

Given the generic nature of the content, which affects all the messages, it is recommended to read chapters 2, 3 and 4 before considering other chapters.

The second part of the manual, containing the remainder of the chapters, describes the different functions supported by HF MEFFGate. Each of these chapters deals with a specific function, describing specific matters of interest.

Each of these chapters contains the following sections:

- **Introduction**. A brief description of the function covered in the chapter
- **List of messages**. List of the different messages implemented by the function
- **Message flow**. Description of the different scenarios for message exchange that may arise, with the corresponding message flow diagrams
- **Annotations and adaptations of FIX 5.0**. Details the annotations and adaptations that MEFF has made to the standard protocol to meet its needs
- **Definition of messages**. Contains a table for each message in the chapter, describing the message fields in detail

1.4 Format of the message definition tables

As explained in the previous section, a table for each message is included in those chapters where it is necessary, describing the component fields in detail.

These tables contain one field per row and have the following columns:

Column	Meaning
Tag	Field number. The fields added to the message in this implementation have an asterisk ("*") after the number
Name	Name of field according to the FIX standard
Req	"Y" indicates that the field is required; "N" means that the field is optional. "Y*" means that the field is required in this implementation, but it is optional in the FIX 5.0 standard
Valid values	Accepted values for the field in the context of the message. It may be a list of values, or a range of numeric values, e.g. ">=3, <= 10". The default value for the field is also indicated in this column. To avoid confusions with the terms, the original FIX value description has been respected in the values associated with codes.
Format	Type of data in the field. It is one of the types defined by FIX, or one of these types with some additional restriction. String(n) is a String type with a maximum of n characters, or in some cases with exactly n characters. For more information on the String type, see 2.4
Description	Description of the field in the context of the message

1.5 Related documents

#	Title	Author
1	Financial Information Exchange Protocol (FIX) 5.0 Service Pack 2 (9 December 2013) EP98-222 enhancing FIX 5.0 SP2	FIX Committee
2	HF MEFFGate – FIX Interface Specifications T5.0	MEFF

2 Implementation decisions

2.1 Description

This chapter presents the implementation decisions made by MEFF. Those aspects that the standard leaves open and have been defined in this implementation are detailed here.

2.2 Fields ignored

In some cases, the content of certain fields of the entering messages may be ignored by HF MEFFGate. When this is the case, it is clearly stated in the field description.

2.3 Unsupported fields

The unsupported fields of a message are not included in its description.

Messages sent to HF MEFFGate should not contain unsupported fields. Messages sent by HF MEFFGate never contain unsupported fields.

No required fields have been declared unsupported.

2.4 Length of String type

The FIX standard does not place any restriction on the maximum length of the String type. In this implementation the maximum length is 255 characters.

In some fields, a shorter maximum length has been established. In these cases, the type is presented as String(n), where “n” is the maximum number of characters of the field. In certain cases “n” indicates the exact length of the field, in which case it will be explicitly stated in the valid values column.

2.5 Maximum length of message

The maximum length of the messages sent or received by HF MEFFGate is 4096 bytes.

2.6 Encryption

HF MEFFGate does not use the encryption defined in the FIX standard (using the SecureData and SecureDataLen fields in the message header). The encryption is implemented through the use of SSL (*Secure Socket Layer*).

2.7 Identification of the HF MEFFGate FIX protocol

HF MEFFGate implements an additional function that allows both parties to agree on the HF MEFFGate FIX version that they are going to use.

It is important to distinguish between the version of the FIX protocol (in this case “5.0”) and the version of the HF MEFFGate FIX protocol (“M5.15” in this edition).

More than one version of the HF MEFFGate FIX protocol may exist for the same version of FIX.

If the version requested by the client program is not available in the HF MEFFGate server in use, it will return a Logout Message with the corresponding explanatory message.

3 FIX Session

3.1 Introduction

The level of the FIX session guarantees the complete delivery of messages between both parties, without errors. HF MEFFGate implements the majority of the functions of the session level defined in the FIX 5.0 standard

3.2 FIX session and communication session

There are two types of session:

- **Communication session**. It begins when opening the socket (ip-address and port assigned to this service). It ends when the socket is closed.

- **FIX session**. This begins when a request to start a session (Logon message) is accepted. It ends when the communication is completed, preferably with the exchange of Logout messages This is a combination of two-way messages identified by a sequence of consecutive numbers. A FIX session begins when the sequence numbers of both parties are restarted with the value 1. There is no explicit way of ending a FIX session; a session ends when a new one begins.

In addition to the two mentioned types of sessions, the trading session should also be considered. A trading session in an environment begins each day when the HF MEFFGate server loads the trading system data and accepts connections for said session.

The client program must begin a new FIX session in every communication session.

Given that HF MEFFGate does not provide 24-hour support for the service, the ResetSeqNumFlag field is not required in the Logon message.

3.3 Identification of the FIX session

Once a communication session has been established, HF MEFFGate identifies the associated FIX session using four fields in the Logon message sent by the initiator:

- SenderCompID
- SenderSubID
- TargetCompID
- TargetSubID

SenderCompID identifies the member and SenderSubID identifies the trader. TargetCompID together with TargetSubID identify the environment.

No more than one FIX session can exist at a time with the same values for these four fields.

The SenderCompID, SenderSubID, TargetCompID and TargetSubID fields are present in all the FIX messages. All the messages belonging to the same FIX session must have the same values in these fields. If a message is received with values that do not correspond with those of the session, it will be rejected with a Reject message.

It should be noted that the values of these fields are inverted when the message is sent by HF MEFFGate, with respect to those sent by the client. Suppose that trader "001" of member "A001" has a session established with the Financial Contract Group at MEFF. The messages will be those shown below:

Client message to HF MEFFGate:

- SenderCompID = “A001”
- SenderSubID = “001”
- TargetCompID = Operating MIC
- TargetSubID = “M3” *

HF MEFFGate message to client:

- SenderCompID = Operating MIC
- SenderSubID = “M3”
- TargetCompID = “A001”
- TargetSubID = “001”

The list of values for TargerCompID/SenderCompID used by BME is located in codification table 2.

The list of values for TargetSubID/SenderSubID used by BME is located in codification table 1.

3.4 Client software and FIX sessions

A HF MEFFGate client is a software development that connects to MEFF through a HF MEFFGate server.

As noted in 3.3, a FIX session is limited to one user and one contract group. A client will be able to establish various FIX sessions simultaneously to access more than one contract group or trade in one contract group with various user codes.

A HF MEFFGate server can provide service to various sessions simultaneously, be they of the same client or various clients.

When a FIX client tries to connect with a contract group that is not available, his Logon message is answered with a Logout message with the appropriate explanation.

3.5 Start of the FIX session

On initiating a new communication session (opening a new socket), the client must initiate a new FIX session. The procedure to follow is described below.

- Start a new FIX session: The value to be used in the MsgSeqNum field of the Logon message must be 1.
- It should be taken into account that any subscription to information is cancelled when the FIX session ends. If this service is required when reinitiating a FIX session, it must be requested again.

3.6 Synchronisation at application level

When a client starts a FIX session (Logon message accepted), it receives a series of information related with the current Segment session.

To synchronise at the application level, the client may use the tags ApplID [1180] + ApplSeqNum [1181]. Value 0 in ApplID [1180] and ApplSeqNum [1181] means updates from the beginning of the business session. If this field is not specified, then the classical behaviour is assumed (snapshot of the current situation and updates from this time).

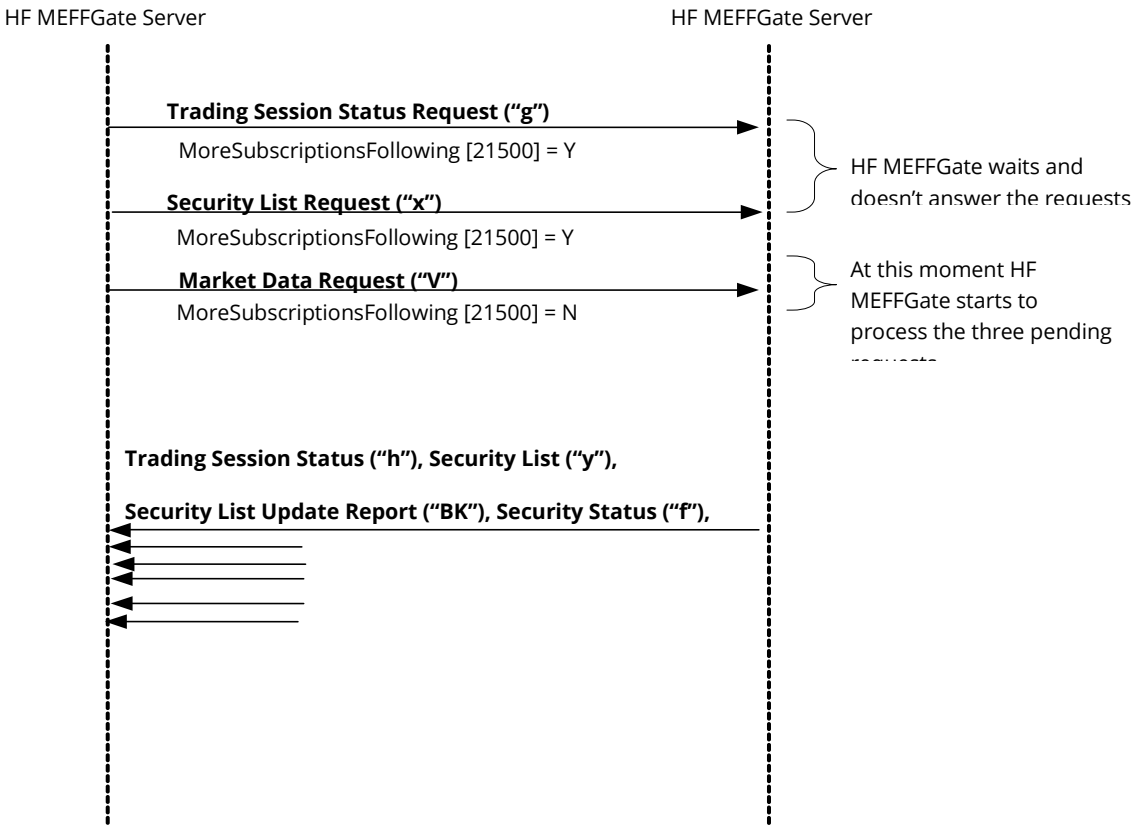
It is recommended the use of the user defined tag MoreSubscriptionsFollowing [21500], (**MoreSubscriptionsFollowing [21500] = “Y”**), in the subscription request. This way allows to group market

information subscription requests (Trading Session Status Request, Security List Request, Security Status Request and Market Data Request) and to establish the moment in which the HF MEFFGate will begin to treat those requests. It can be combined with the reception of public information from a particular point in session to handle connections after a disconnection. Messages will be sent in the same order in which they were generated during the session; this implies that it is possible to receive Market Data Snapshot Full Refresh while receiving Security List Update Report.

When this tag is used, MoreSubscriptionsFollowing [21500] = "Y", HF MEFFGate will leave the different subscriptions requests pending and will not process them until a subscription request with MoreSubscriptionsFollowing [21500] = "N", is received. HF MEFFGate will assume that from this moment no subsequent subscription requests will be received and therefore any subsequent request will be rejected. Below is an example of how the tag MoreSubscriptionsFollowing [21500] is used.

If this tag is not used (or MoreSubscriptionsFollowing [21500] = "N" for all subscriptions), the current behaviour will be maintained, i.e. an immediate reply to each subscription request.

Below there is a message flow using the tag MoreSubscriptionsFollowing [21500]:



It should be taken into account that any subscription to information is cancelled when the FIX session ends. If this service is required when reconnecting to a new session, it must be requested again.

The series of messages not associated to subscriptions referred to in this section correspond to the following messages:

- News

3.7 High availability

To improve the availability of access to MEFF there will be various instances of the HF MEFFGate server executing in different computers.

All the instances of HF MEFFGate will be connected with the central systems of MEFF. Therefore, they will have all the necessary information.

When a HF MEFFGate server fails, the client can continue working with another HF MEFFGate. The client must carry out the necessary processes to synchronise at the application level using the tags ApplID [1180] + ApplSeqNum [1181].

When a client application that has established a FIX session fails, the client application can synchronise at the application level from another equipment following the same procedure described in the previous paragraph.

3.8 List of messages

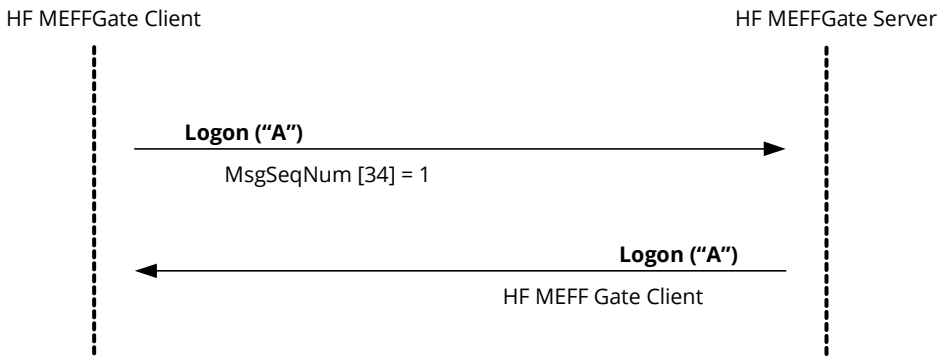
The functionality at the session level is implemented in FIX 5.0 using five administrative messages. All these are fully supported by the HF MEFFGate FIX protocol.

Message	Description
Logon (Msg Type = A)	Request or confirmation of the start of a FIX session
Logout (Msg Type = 5)	Request or confirmation of the end of a FIX session
Heartbeat (Msg Type = 0)	Periodic notification that the connection is alive
Test Request (Msg Type = 1)	Request to send a Heartbeat message to confirm that the connection is alive
Reject (Msg Type = 3)	Reject a message at session level

3.9 Message flow

Start of FIX session

A request to start a FIX session (Logon message) that is accepted is replied to by the receiver with another Logon message. The initiator must not send another message until it has received this confirmation of acceptance.

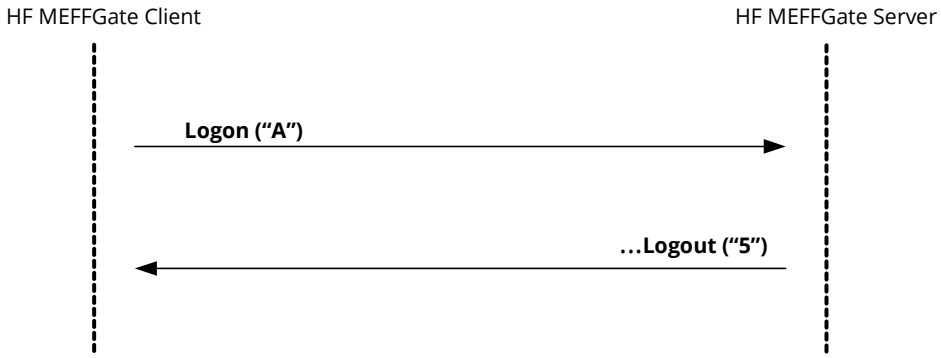


Start of FIX session rejected

When the start of a FIX session (Logon message) is not accepted, HF MEFFGate will reply with a Logout

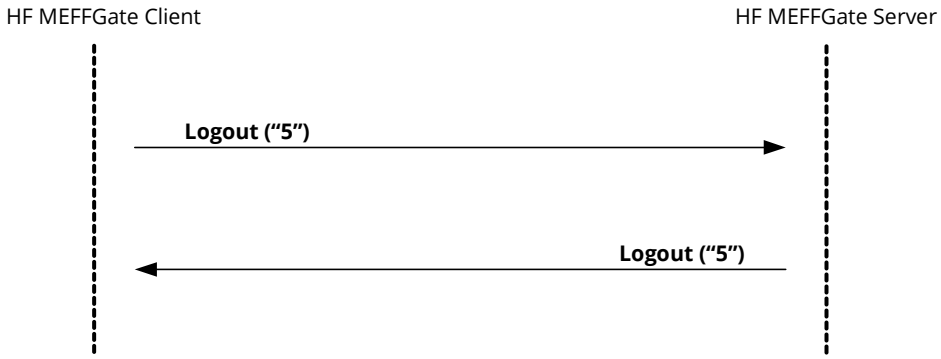
message.

For more details on the behaviour of sequence numbers of both parties see section 0.



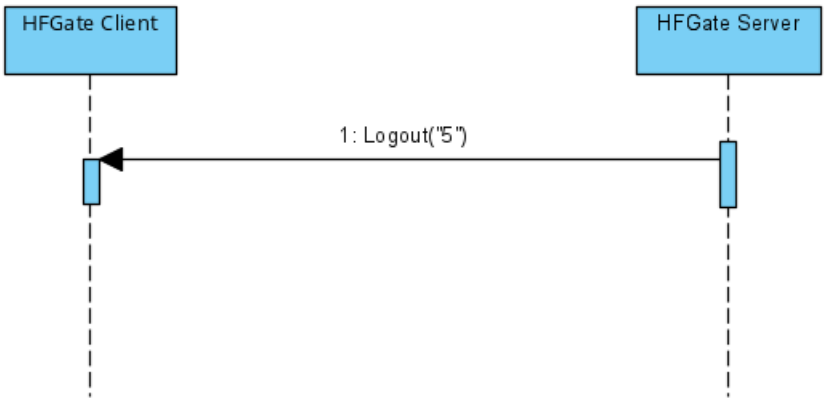
End of a FIX session started by the sender

The client can end the FIX session by sending a Logout message at any time.



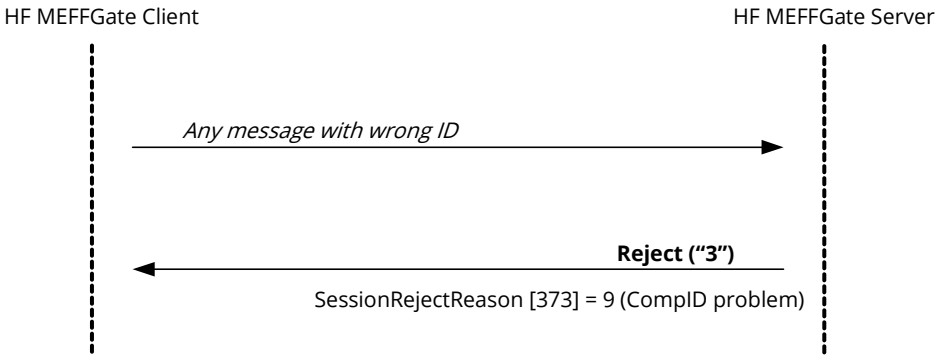
End of a FIX session started by the receiver

In exceptional circumstances, the server can end the FIX session with a Logout message.



Sending messages with identification fields of session (SenderCompID, SenderSubID, TargetCompID and TargetSubID) with different values from those associated to the current FIX session

All the messages associated to a FIX session must include the same identifying values of the session (SenderCompID, SenderSubID, TargetCompID and TargetSubID). If a message differs from the values indicated in the Logon of the session, it is rejected with a Reject message.



3.10 Annotations and adaptations of FIX 5.0

- The user optional field LocalMktTimestamp [21501] has been added to the Logon message to Indicates for all tags in which a timestamp is included, the timestamp format (UTC format or local market time)
- The optional fields ApplID [1180] and ApplSeqNum [1181] have been added to the Logon message to indicate that only updates from the point indicated are requested
- The Text [58] and DefaultCstmApplVerID [1408] fields in the Logon message are now required
- When a request to start a session (Logon message) is rejected, the receiver (MEFF) will always send a Logout message in reply
- The SenderSubID [50] and TargetSubID [57] fields in the header of messages (Standard Message Header) are now required
- The FIX method of encryption is not supported
- The Resend Request and Sequence Reset messages are not supported (and rejected by HF MEFFGate)
- The valid values of the ResetSeqNumFlag [141] field in the Logon message are limited to the value "N"
- The user field BusinessSessionDate [21505] has been added to the Logon message sent by HF MEFFGate to inform the current business session date

3.11 Definition of messages

3.11.1Standard Message Header

Header is present in all FIX messages.

Tag	Name	Req	Valid values	Format	Description
8	BeginString	Y	FIXT.1.1	String	Indicates the start of a new message. It is always the first field of the message
9	BodyLength	Y		Int	Length of message in bytes, from the end of this field up to and including the delimiter before the Checksum field. It is always the second field of the message
35	MsgType	Y	All message types supported by MEFF	String	Identifies the type of message. It is always the third field of the message
49	SenderCompID	Y	See chapter "3.3 - Identification of the FIX session"	String	Identifier of the entity that sends the message. It contains the operating MIC of the venue (see table 2 document “Codification tables”) when the message is sent by HF MEFFGate. It must contain the member code in the messages sent by the client application.
56	TargetCompID	Y	See chapter "3.3 - Identification of the FIX session"	String	Identifier of the entity that the message is sent to. It should contain the operating MIC of the venue (see table 2 document “Codification tables”) when the message is sent to HF MEFFGate, although HF MEFFGate ignores the content of this field. It contains the member code in the messages sent by HF MEFFGate.
34	MsgSeqNum	Y		SeqNum	Sequence number of the message within the current FIX session
50	SenderSubID	Y*	See chapter "3.3 - Identification of the FIX session"	String	The messages sent from HF MEFFGate to the client contain the code assigned to the contract group with which the connection was established (see table 1 document “Codification tables”). Messages sent to HF MEFFGate must contain the trader code with which the FIX session was started

Tag	Name	Req	Valid values	Format	Description
57	TargetSubID	Y*	See chapter "3.3 - Identification of the FIX session"	String	The messages sent from HF MEFFGate contain the code of the trader which it is to be sent to. Messages sent to HF MEFFGate must contain the code of the contract group with which the connection was established (see table 1 document “Codification tables”)
52	SendingTime	Y		UTC Timestamp	Time message sent

3.11.2 Standard Message Trailer

Present in all FIX messages.

Tag	Name	Req	Valid values	Format	Description
10	CheckSum	Y		String(3)	Checksum of the message, calculated in accordance with the standard. It is always the last field of the message and its length is exactly 3 bytes

3.11.3 Logon (Msg Type = A)

The Logon message is used to start a session by the client application and to accept it by the HF MEFFGate.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = A		
98	EncryptMethod	Y	0 = None	Int	Ignored by HF MEFFGate
108	HeartBtInt	Y	>= 1	Int	Interval at which messages are sent to verify the connection (Heartbeat message) expressed in seconds.
141	ResetSeqNumFlag	N	N	Boolean	Only allows the value "N", as it is not required in the implementation of the protocol
789	NextExpectedMsgSeqNum	N		SeqNum	If informed only value 1 is allowed
464	TestMessageIndicator	N	Y = Test N = Production	Boolean	Indicates whether it is a test or production session. The client can use it optionally to indicate if it wants to connect to the production or test environment. The start of a session is accepted only if this environment is valid for the HF MEFFGate If the client does not indicate anything, this parameter is not taken into account. In any event HF MEFFGate always informs this field
553	Username	N		String	Identifier of the user assigned by MEFF. Required when the message is sent by the client application. It is currently comprised of the combination of the member code and the trader code assigned by MEFF
554	Password	N		String	User Password. Required when the message is sent by the client application
1137	DefaultApplVerID	Y	9	String	Value 9 refers to FIX50SP2
1408	DefaultCstmApplVerID	Y*	M5.15	String	Exact identification of the version of the protocol used and expected by the client application
58	Text	Y*		String	The client must include a descriptive string of the software name used by the FIX connection. This will be one that has passed the corresponding conformance test
1180*	ApplID	N		String	If provided, only updates from the point indicated will be sent.

Tag	Name	Req	Valid values	Format	Description
					This value, used in conjunction with ApplSeqNum [1181], should match in the same field in any of the messages provided by the HF MEFFGate such as: Market Data Snapshot Full Refresh, Security List, Security List Update Report, Security Status, …
1181 *	ApplSeqNum	N		SeqNum	Required if ApplID [1180] is specified. This value, used in conjunction with ApplID [1180], should match the same field in any of the messages provided by the HF MEFFGate such as: Market Data Snapshot Full Refresh, Security List, Security List Update Report, Security Status, …
21501*	LocalMktTimestamp	N	Y, N (default)	String	Indicates, for all tags in which a timestamp is included, the timestamp format: Y – HF MEFFGate will send the local market time (all messages up to microseconds) N – HF MEFFGate will send the the time in UTC format according to the FIX standard (all messages up to microseconds) For more information see 4.5
21505*	BusinessSessionDate	N		LocalMktDate	Current business session date. This tag is only informed in the Logon response message sent by HF MEFFGate. The client application should not send this tag in the Logon message sent to HF MEFFGate.
	Standard Trailer	Y			

3.11.4 Logout (Msg Type = 5)

The Logout message is used by both parties to request the end of a communication session and to accept said request.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = 5		
58	Text	N		String	Explanatory text
	Standard Trailer	Y			

3.11.5 Heartbeat (Msg Type = 0)

The Heartbeat message is used by both parties to indicate that the connection is active.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = 0		
112	TestReqID	N		String	If the message is the reply to a Test Request message, it must contain the same value as the original TestReqID field. Otherwise, this field should be omitted.
	Standard Trailer	Y			

3.11.6 Test Request (Msg Type = 1)

The Test Request message is used by both parties to request that a Heartbeat message be sent.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = 1		
112	TestReqID	Y		String	Identifier of the request. It must be included in the Heartbeat message reply
	Standard Trailer	Y			

3.11.7Reject (Msg Type = 3)

The Reject message is used by HF MEFFGate to reject a message that does not comply with the FIX protocol specified by MEFF.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = 3		
45	RefSeqNum	Y		SeqNum	Sequence number of the rejected message
373	SessionRejectReason	N	0 = Invalid tag number 1 = Required tag missing 2 = Tag not defined for this message type 3 = Undefined Tag 4 = Tag specified without a value 5 = Value is incorrect (out of range) for this tag 6 = Incorrect data format for value 9 = CompID problem 11 = Invalid MsgType 13 = Tag appears more than once 14 = Tag specified out of required order 15 = Repeating group fields out of order 16 = Incorrect NumInGroup count for repeating group 17 = Non "data" value includes field delimiter (SOH character) 99 = Other	Int	Code indicating the rejection motive

Tag	Name	Req	Valid values	Format	Description
58	Text	N		String	Contains a more detailed explanation of the reason for the rejection
	Standard Trailer	Y			

4 General conventions in application messages

4.1 Instrument block

In some requests, the FIX client may specify selection criteria for the securities. In these cases, it will only receive information on the securities that meet these criteria. The possible selection criteria correspond to the fields of the Instrument block.

The table below indicates which fields are accepted by MEFF and the type of request that can be made.

Field	Meaning
SecurityType [167]	Product type
SecurityID [48]	MEFF Underlying asset
MaturityMonthYear [200]	Contract expiration

The use of these fields is explained in detail in the following sub-sections.

4.1.1 SecurityType [167]

This code identifies the product type (see table 6 in document "Codification Tables"). Only messages sent by HF MEFFGate. Not allowed in messages sent by FIX client.

4.1.2 Underlying asset (SecurityID [48] field)

This code identifies the underlying asset of a contract (see table 7 in document "Codification Tables")

4.1.3 Expiration (MaturityMonthYear [200] field)

For contracts with standard maturities, indicates the month and year when the contract expires. In this case, the format for this field is YYYYMM (e.g. 201312)

For contracts with non-standard maturities, indicates the date when the contract expires. In this case, the format for this field is YYYYMMDD (e.g. 20131219)

For contracts with week standard maturities, the format for this field is YYYYMMwW (e.g. 201312w2).

4.1.4 Combination of selection criteria

When various selection criteria are combined, only those securities that meet all the requirements are selected. When a selection criteria is not specified it is understood that this criteria is to be ignored and no security will be discarded for this reason.

The following table shows some examples:

SecurityType [167]	SecurityID [48]	MaturityMonthYear [200]	Meaning
F	FIE	(omitted)	All futures on IBEX index
F	BBVA	(omitted)	All the BBVA futures contracts with physical delivery
(omitted)	FIE	201203	All the contracts with IBEX index as underlying, with March 2012 expiration
O	(omitted)	201206	All options with June 2012 expiration
R	TEF	(omitted)	All time-spread contracts where Telefonica stocks is underlying of at least one leg
(omitted)	(omitted)	(omitted)	All contracts
X	(any)	(any)	**Wrong selection criteria**

4.2 Limitation on the maximum permitted number of subscriptions

Only one subscription per subscription type during the session is allowed, except for Market Data where up to 5 subscriptions are supported.

If, once reached that limit, the client application tries to establish new subscriptions, they will be rejected with an error message indicating that the maximum permitted number of subscriptions has been reached.

4.3 Reception of public information from a particular point in the session

It is possible to receive only the updates from a particular point in the business session indicated by the client application. For this purpose tags ApplID [1180] and ApplSeqNum [1181] are used in the Logon message. If this field is not specified then the classical behaviour is assumed (snapshot of the current situation and updates from this time for Market Data Snapshot Full Refresh and updates from the beginning of the business session for Trading Session Status, Security List and Security Status).

Value 0 in ApplSeqNum [1181] means updates from the beginning of the business session.

4.4 Fields not informed on receipt of information

If no information is received from HF MEFFGate for an specific field, then it should be considered that this has not changed since last update.

This applies, for example, to Market Data Snapshot Full Refresh and Security Status messages.

To see it better, let's consider two examples:

Example 1: Market Data request.

- **Initial market. This is the bid-offer situation for an specific contract:**

Bid	Offer
	10 @ 9015
2 @ 9014	
6 @ 9012	

The following Market Data Snapshot Full Refresh message is sent:

...

NoMDEntries [268] = 3

MDEntryType [269] = 0 (Bid)

MDEntryPx [270] = 9014

MDEntrySize [271] = 2, ...

MDEntryType [269] = 0 (Bid)

MDEntryPx [270] = 9012

MDEntrySize [271] = 6, ...

MDEntryType [269] = 1 (Offer)

MDEntryPx [270] = 9015

MDEntrySize [271] = 10, ...

...

- **A new change on the bid side (price 9012 is deleted):**

Bid	Offer
	10 @ 9015
2 @ 9014	

HF MEFFGate communicates this update **without necessarily informing** the offer side:

...

NoMDEntries [268] = **1**

MDEntryType [269] = 0 (Bid)

MDEntryPx [270] = 9014

MDEntrySize [271] = 2, ...

...

- **Another new change on the bid side (last price 9014 is deleted):**

Bid	Offer
-	10 @ 9015

HF MEFFGate communicates this update **without necessarily informing** the offer side:

...

NoMDEntries [268] = **1**

MDEntryType [269] = 0 (Bid)

MDEntryPx [270] = ...

MDEntrySize [271] = 0, ...

...

Example 2: Security Status request.

- **Let's assume a contract, ready to trade, with an specific price range. This is the Security Status message sent:**

...

SecurityTradingStatus [326] = 17 (Ready to trade)

HighPx [332] = 9075

LowPx [333] = 8975

...

- **The security status changes to auction:**

HF MEFFGate communicates this update **without necessarily informing** the price range (HighPx, LowPx):

...

SecurityTradingStatus [326] = 21 (Pre-Open)

...

4.5 Timestamp format

The system permits the user to define, for all tags in which a timestamp is included, whether the format is UTC (according to the FIX standard), or the local market time.

For this functionality the user defined tag LocalMktTimestamp [21501] is used in the Logon message.

When this tag is used, with LocalMktTimestamp [21501] = "Y", HF MEFFGate will send the local market time (all messages up to microseconds).

If this tag is not used (or LocalMktTimestamp [21501] = "N"), HF MEFFGate will send the time in UTC format (all messages up to microseconds).

4.6 SeqNum data types

According to the FIX standard, the SeqNum data type is an int field and value must be positive. The client application must be ready to receive values greater than 2^{31}.

4.7 X-Ref MMT-FIX

Level 1 - Market Mechanism

MARKET MODEL TIPOLOGY **FIX (Market Data Snapshot Full Refresh message)**

Full Name	Code (Efficient Mode)	MdOriginType [1024]
Central Limit Order Book	1	0
Quote Driven Market	2	3
Dark Order Book	3	4
Off Book (including Voice or Messaging Trading)	4	1
Periodic Auction	5	5
Request for quotes	6	6

Level 2 - Trading Mode

MARKET MODEL TIPOLOGY **FIX (Trading Session Status message)**

Full Name	Code (Efficient Mode)	TradingSessionSubId [625]
Undefined Auction	1	8
Scheduled Opening Auction	O	2
Scheduled Closing Auction	K	4
Scheduled Intraday Auction	I	6
Unscheduled Auction	U	9
Continuous Trading	2	3
At Market Close Trading	3	5
Out of Main Session Trading	4	10
Trade Reporting (On Exchange)	5	201
Trade Reporting (On Exchange)	5	203
Trade Reporting (On Exchange)	5	204

Level 3.1 - Transaction category

MARKET MODEL TIPOLOGY **FIX (Market Data Snapshot Full Refresh message)**

Full Name	Code (Efficient Mode)	EventText [868] con EventType [865] = 211
Package Trade (excluding Exchange for Physicals) "TPAC"	Z	Z
Exchange for Physicals Trade "XFPH"	Y	Y

Level 3.5 - Benchmark or Reference Price Indicator

MARKET MODEL TIPOLOGY **FIX (Market Data Snapshot Full Refresh message)**

Full Name	Code (Efficient Mode)	TradeCondition [277]	TrdRegPublicationType [2669]	TrdRegPublicationReason [2670]
Benchmark Trade "BENC"	B	6	-	-

Level 3.8 - Ordinary/Standard Trades or Trades Outside Price Formation / Discovery Process

MARKET MODEL TIPOLOGY **FIX (Market Data Snapshot Full Refresh message)**

Full Name	Code (Efficient Mode)	TradePriceCondition [1839]
Plain-Vanilla Trade	P	-
Non-Price Forming Trade (formerly defined as a Technical Trade) "NPFT"	T	15

Level 3.9 - Algorithmic Indicator

MARKET MODEL TIPOLOGY **FIX (Market Data Snapshot Full Refresh message)**

Full Name	Code (Efficient Mode)	AlgorithmicTradeIndicator [2667]
Algorithmic trade "ALGO"	H	1
No Algorithmic trade	-	0

Level 4.1 - Publication Mode / Post-Trade Deferral Reason

MARKET MODEL TIPOLOGY **FIX (Market Data Snapshot Full Refresh message)**

Full Name	Code (Efficient Mode)	TradePublishIndicator [1390]	TrdRegPublicationType [2669]	TrdRegPublicationReason [2670]
Immediate Publication	-	1	-	-
Non-Immediate Publication	1	2	-	-
Non-Immediate	2	2	1	6

Full Name	Code (Efficient Mode)	TradePublishIndicator [1390]	TrdRegPublicationType [2669]	TrdRegPublicationReason [2670]
Publication: Deferral for "Large in Scale" "LRGS"				
Non-Immediate Publication: Deferral for "Illiquid Instrument" (RTS 2 only) "ILQD"	3	2	1	7
Non-Immediate Publication: Deferral for "Size Specific" (RTS 2 only) "SIZE"	4	2	1	8

Level 4.2 - Post-Trade deferral or Enrichment

MARKET MODEL TIPOLOGY **FIX (Market Data Snapshot Full Refresh message)**

Full Name	Code (Efficient Mode)	RegulatoryReportType [1934]
Limited details trade "LMTF"	1	11
Daily aggregated trade "DATF"	2	12
Volume omission trade "VOLO"	3	13
Four weeks aggregation trade "FWAF"	4	14
Indefinite aggregation trade "IDAF"	5	15
Volume omission trade. Eligible for subsequent enrichment in aggregated form "VOLW"	6	16
Full details of previous LMTF "FULF"	7	17
Full details of previous DATF "FULA"	8	18

Full details of previous VOLO "FULV"	9	19
Full details of previous FWAF "FULJ"	V	20
Full details of previous VOLW "COAJ"	W	21

5 Common Application Messages

5.1 Introduction

This chapter presents some common messages at the application level that cover three functions: the control of the communication status, the individual user password change and the rejection of messages by HF MEFFGate.

5.2 Network communication status

HF MEFFGate includes a mechanism to inform the client application of the status of communication between HF MEFFGate itself and the central system. This functionality is achieved using the FIX Network Status messages.

HF MEFFGate will always send Network Counterparty System Response messages reporting on status of connection between HF MEFFGate and the central systems (whether or not the client subscribed to it).

The information supplied with these messages only refers to the connection between the equipment and should not be confused with the status of the trading session, which is covered in 6.2.

5.3 Password change

This functionality allows to change the individual user password used in the connection between the client application and HF MEFFGate.

The new password is valid for all the next future sessions between the client application and HF MEFFGate.

5.4 Rejection of application messages

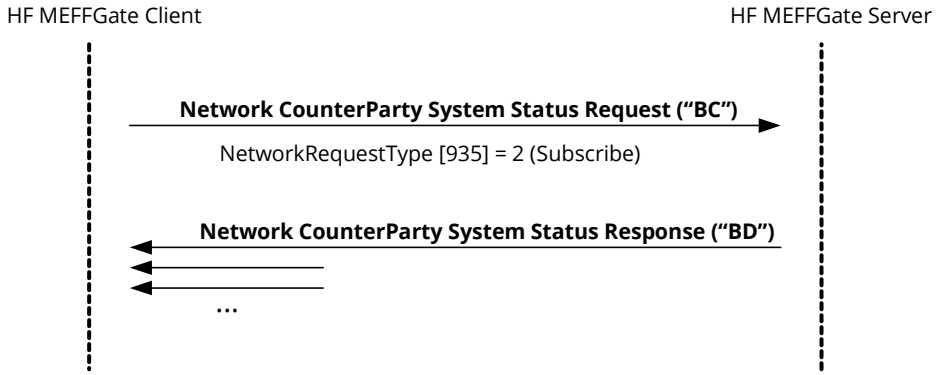
When HF MEFFGate receives a supported message with correct syntax in an unsupported situation, but there is no specific rejection message, the Business Message Reject is used. In particular, this is used to reject the Network Counterparty System Status Request message.

5.5 List of messages

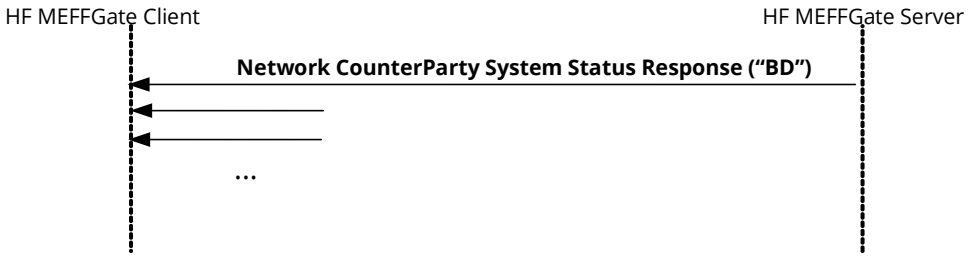
Message	Description
Network Counterparty System Status Request (Msg Type = BC)	Request of connection status between HF MEFFGate and the central systems
Network Counterparty System Status Response (Msg Type = BD)	Report on status of connection between HF MEFFGate and the central systems
User Request (Msg Type = BE)	Individual user password change request
User Response (Msg Type = BF)	Reply to a User Request message
Business Message Reject (MsgType = j)	Rejection of message at application level (used when there is no specific message)

5.6 Message flow

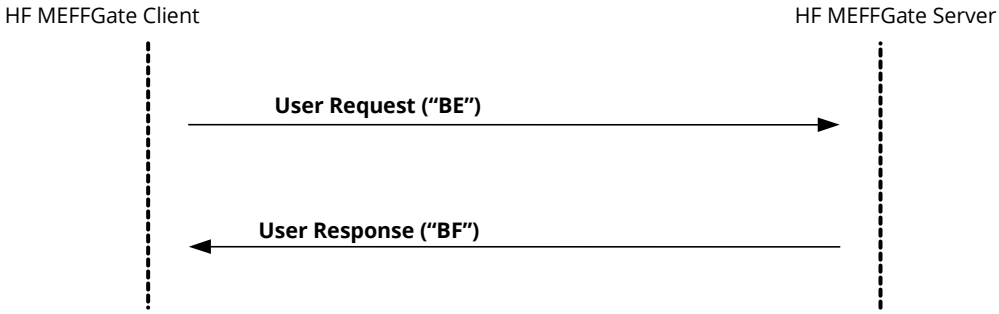
Subscription to connection status



Report on connection status without any subscription



Individual password change



5.7 Annotations and adaptations of FIX 5.0

In the User Request message, the Password [554] and NewPassword [925] fields are now required

5.8 Definition of messages

5.8.1 Network Counterparty System Status Request (Msg Type = BC)

Message sent by the client application to request information on the status of the connection between HF MEFFGate and the MEFF central systems.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = BC		
935	NetworkRequestTyp e	Y	2 = Subscribe	Int	
933	NetworkRequestID	Y		String(10)	Message identifier
	Standard Trailer	Y			

5.8.2 Network Counterparty System Status Response (Msg Type = BD)

Message sent by HF MEFFGate as reply to a Network Counterparty System Status Request Message.

It has information about the connectivity between HF MEFFGate and the MEFF central systems.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = BD		
937	NetworkStatusResponseType	Y	1 = Full	Int	
933	NetworkRequestID	N		String	Message identifier Network Counterparty System Status Request to which it is being responded
932	NetworkResponseID	Y		String	Unique message identifier
936	NoCompIDs	Y	1	NumInGroup	
→ 930	RefCompID	Y		String	Contains the same value as the SenderCompID field in the header (see 3.3) This field is always included in the message
→ 931	RefSubID	N	See Identification of the FIX session	String	Contains the same value as the SenderSubID field in the header (see 3.3) This field is always included in the message
→ 928	StatusValue	Y	1 = Connected 2 = Not connected – down expected up 3 = Not connected – down expected down 4 = In Process	Int	Connection status This field is always included in the message
→ 929	StatusText	N		String	Additional information
	Standard Trailer	Y			

5.8.3 User Request (Msg Type = BE)

Message sent by the client to modify the password used in their connection to the HF MEFFGate

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = BE		
923	UserRequestID	Y		String (10)	Unique identifier for each User Request message
924	UserRequestType	Y	~~3 = Change Password For User~~	Int	
553	Username	Y		String	Identifier of the user assigned by MEFF. It is currently comprised of the combination of the member code and the user code
554	Password	Y*		String (10)	Old Password
925	NewPassword	Y*		String (10)	~~New Password~~
	Standard Trailer	Y			

5.8.4 User Response (Msg Type = BF)

Message sent by HF MEFFGate to notify the status of the request initiated with the User Request message.

This message is only sent to the user who made the request.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = BF		
923	UserRequestID	Y		String	Identifier assigned by the client in the User Request message
553	Username	Y		String	User identifier
926	UserStatus	N	~~5 = Password Changed~~ ~~6 = Other~~	Int	Status of the User Request message If rejected (value 6) , there is an explanation in the UserStatusText field
927	UserStatusText	N		String	When UserStatus = 6 there is an explanation of the rejection
	Standard Trailer	Y			

5.8.5 Business Message Reject (MsgType = j)

Message sent by HF MEFFGate when it receives a supported message that is syntactically correct in an unsupported situation, and there is no specific rejection message. It is especially used to reject a Network Counterparty System Status Request message.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = j		
45	RefSeqNum	N		SeqNum	When present, indicates MsgSeqNum of the rejected message. If value zero, the content of this field should not be considered.
372	RefMsgType	Y	.	String	MsgType of the rejected message
379	BusinessRejectRefID	N		String	Optional Identifier of the rejected message
380	BusinessRejectReason	Y	0 = Other 3 = Unsupported Message Type	Int	Reason for rejection
58	Text	N		String	Explanation of rejection
	Standard Trailer	Y			

6 Market Information

6.1 Introduction

Market information groups together various functionalities related to public market information, which are classified into three groups:

- **Session status.** Status of trading session
- **Security information**. Definition and status of securities selected
- **Prices**. Prices in selected securities

Each of these groups is covered in a separate section of this chapter. Section 6.5 provides details of the format of the corresponding messages.

6.2 Market information: Session status

6.2.1 Description

This functionality allows the client to obtain the status for the contract group associated to the current FIX session and to be notified of the changes of status that occur.

6.2.2 List of messages

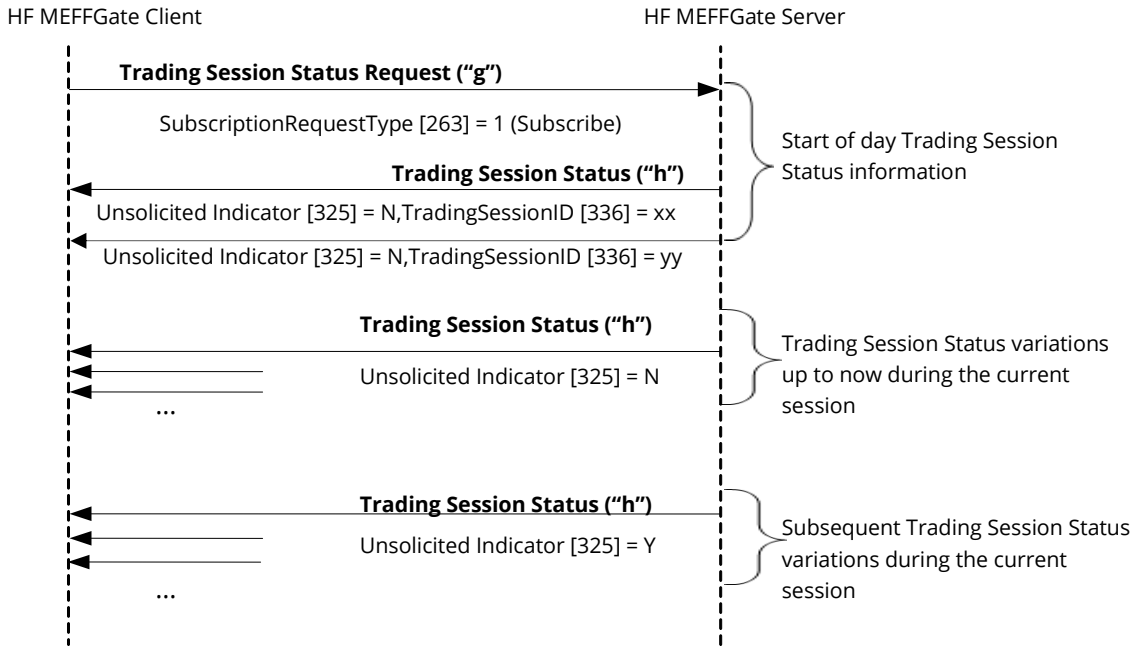
Message	Description
Trading Session Status Request (Msg Type = g)	Sent by the client to request the session status
Trading Session Status (Msg Type = h)	Sent by the server to return information on the session status or to notify that the request has been rejected

6.2.3 Message flow

Trading Session status request

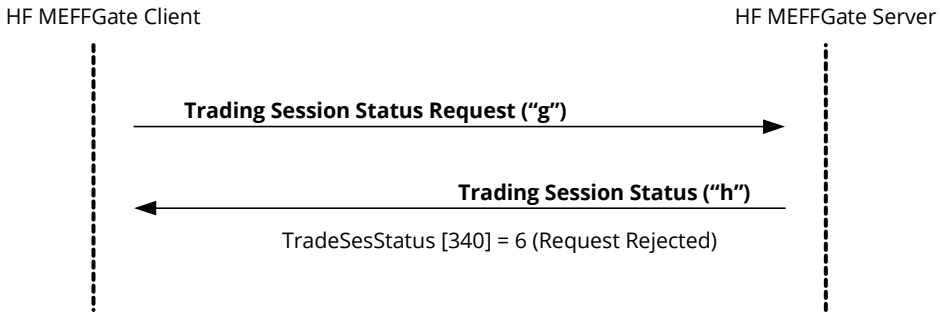
This request is initially answered, for every trading mode within the corresponding contract group that meets the selection criteria, with one or more Trading Session Status messages indicating the different situations up to this moment.

From this point on, a new Trading Session Status message is received, when there is a change in status, with the corresponding information. These later messages will have "Y" in the UnsolicitedIndicator field.



Failed Trading Session status request

A failed Trading Session Status request is answered by a Trading Session Status message with the field TradeSesStatus = 6.



6.2.4 Annotations and adaptations of FIX 5.0

- The tag TransactTime [60] has been added to message Trading Session Status
- The optional field MoreSubscriptionsFollowing [21500] has been added to the Trading Session Status Request message to group market information subscription requests

6.3 Market information: Securities

6.3.1 Description

This functionality allows security information to be obtained. The information is organised in two groups:

- **Security definitions**. Static information of the definition of the securities as a snapshot (Security List) and the updates during the session (Security List Update Report).
- **Security status**. Dynamic information that shows the status of the securities (Security Status)

6.3.2 Request security information

The request for the definition of securities follows the criteria specified in the section Instrument block on this document.

6.3.3 Reception of security definitions

The information on the security definitions is received in the Security List and Security List Update Report messages. Keep in mind that, according to the FIX standard, the Security List Update Report message is automatically sent (as a result of the subscription via Security List Request or Security Status Request) each time there is an update, during the session, to the security definition. As a result, the client application should be ready to receive this kind of message.

For instance, it's possible to receive a Security List Update Report message saying there are new strikes in options.

These messages gives one security at a time. The TotNoRelatedSym field gives the total number of securities that meet the selection criteria and the NoRelatedSym field (always 1) gives the number of securities contained in that particular message.

6.3.4 Reception of security status

The information of the security status is received in the Security Status message. Each Security Status message contains information for one security. The reply to a Security Status Request message may consist of several Security Status messages. In this case, there is no mechanism to know when all the information has been received. If necessary, the FIX client will have to first request the list of securities using the Security List Request message to work out how many securities meet certain criteria.

If no information is received for a specific field then it should be considered that this has not changed since the last update (see chapter 4.4 for more detail).

A new Security Status message is received when there is a change in the security status with the new information.

A new Security List Update Report message is received when there is a change in the security definition with the new information.

6.3.5 List of messages

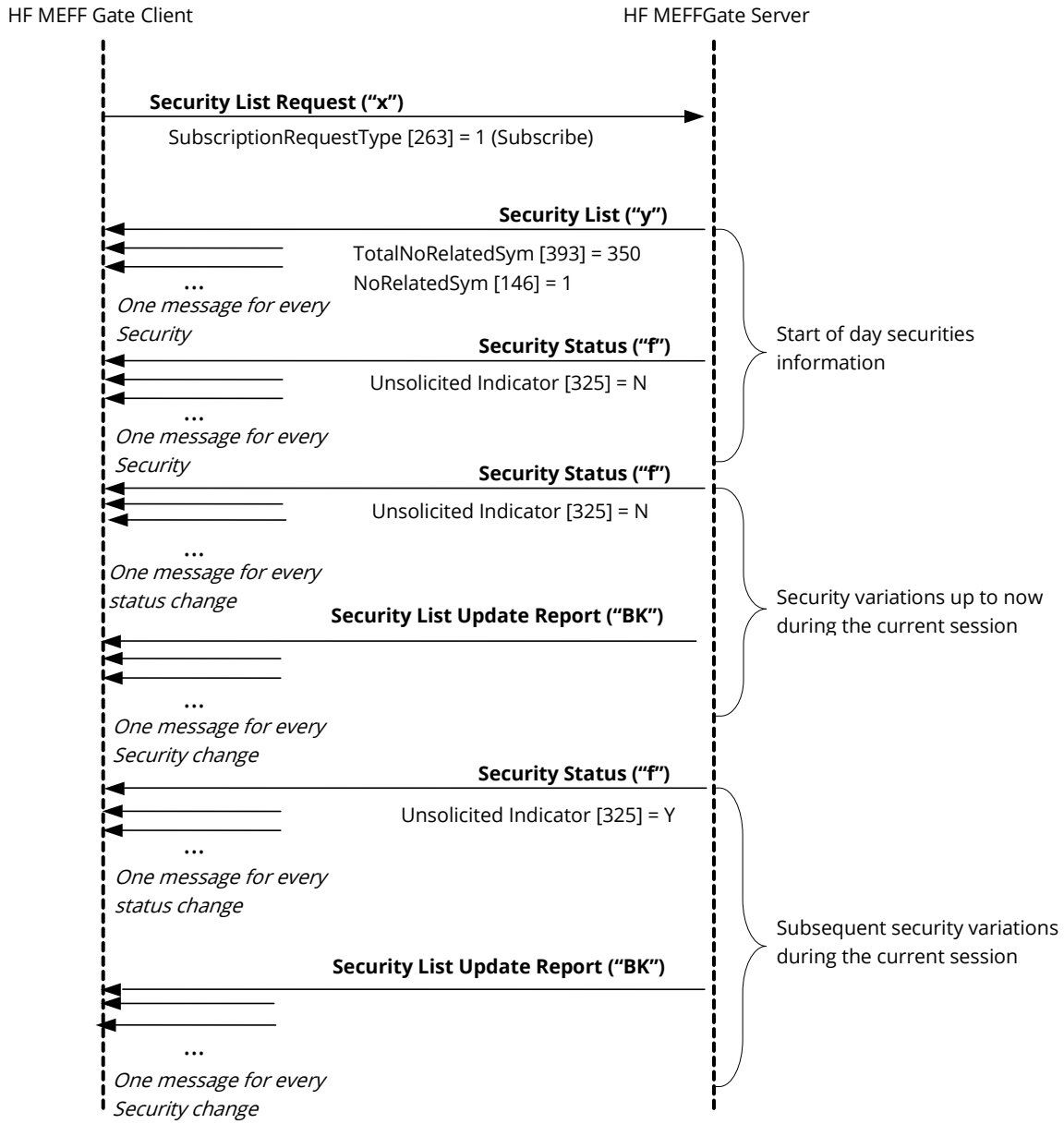
Message	Description
Security List Request (Msg Type = x)	Sent by the client to request the definition of securities. It also allows information on the status of the securities to be requested
Security List (Msg Type = y)	Sent by the server to provide the security definitions as a snapshot. It is also used to inform about the rejection of requests for this information
Security List Update Report (Msg Type = BK)	Sent by the server to provide the security definitions as an update during the session.
Security Status Request (MsgType = e)	Sent by the client to request the status of securities
Security Status (MsgType = f)	Sent by the server to inform about the status of securities. It is also used to inform about the rejection of requests for this information, or to inform that there is no security meeting the selection criteria

6.3.6 Message flow

Request security definitions and security status

This request is initially answered, for each security that meets the selection criteria, with one or more Security List + Security Status messages indicating the different situations of the security up to this moment.

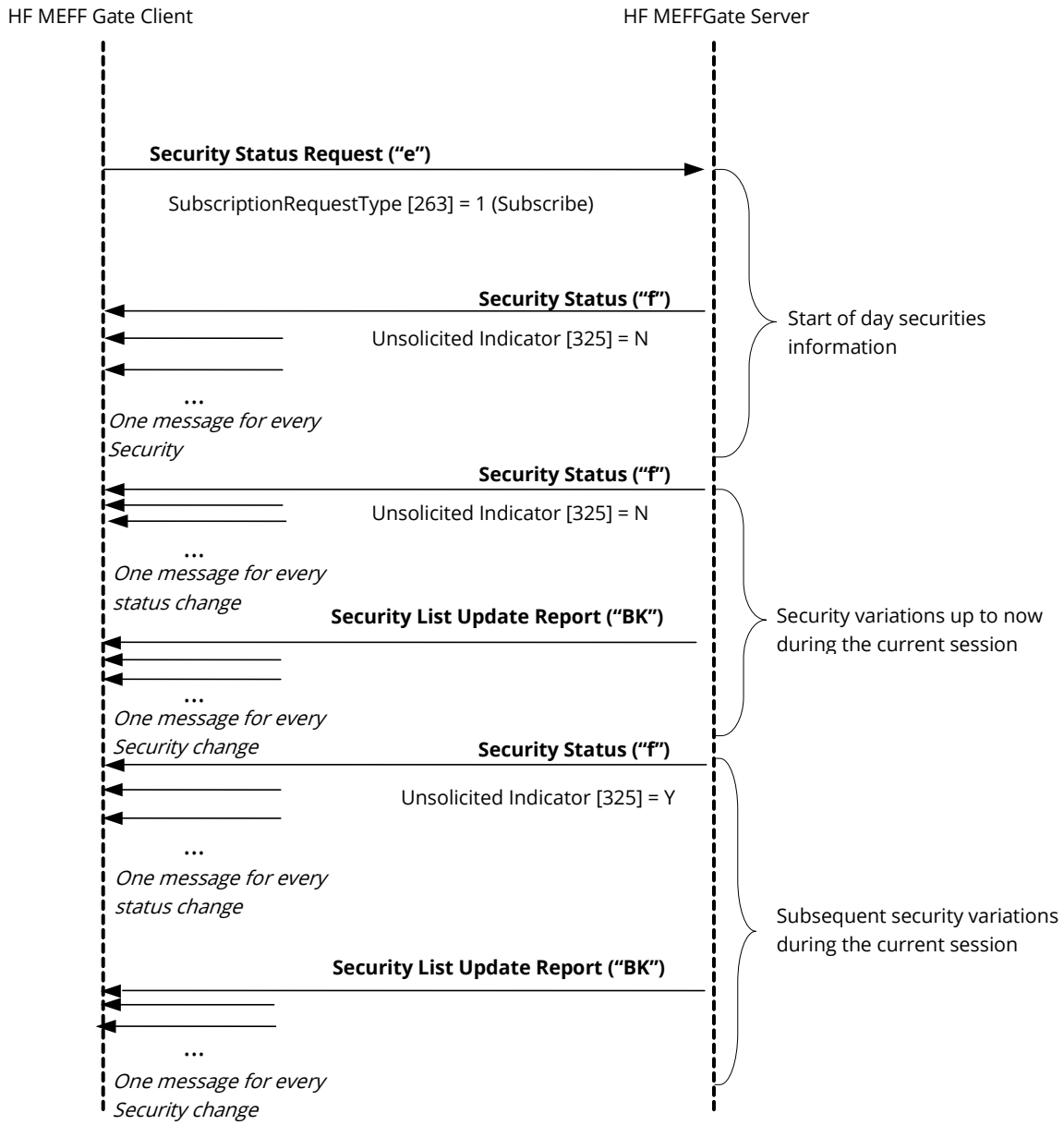
From this point on, a new Security List Update Report or Security Status message is received when there is a change in status for any of the set of the securities with the corresponding information. These later messages will have "Y" in the UnsolicitedIndicator field.



Request security status

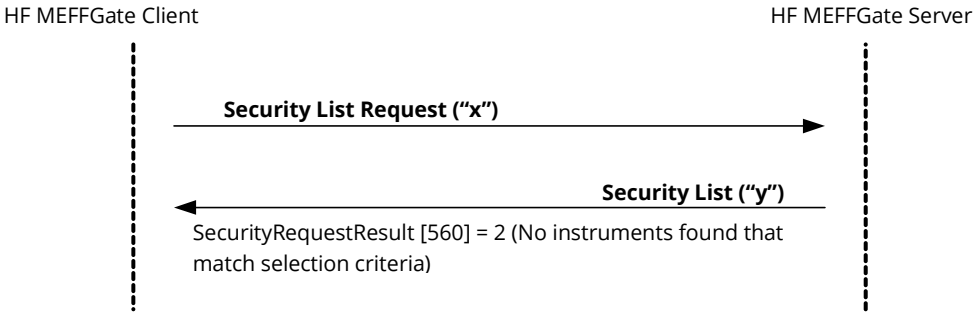
This request is initially answered, for each security that meets the selection criteria, with one or more Security Status messages indicating the different situations of the security up to this moment.

From this point on, a new Security List Update Report or Security Status message is received when there is a change in status for any of the set of the securities with the corresponding information.



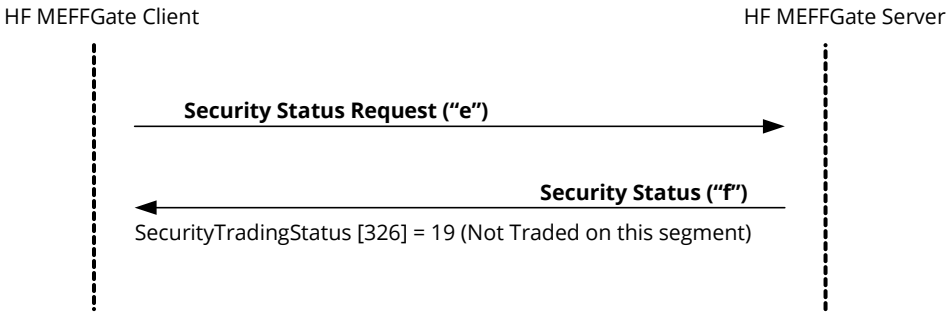
Request security definitions, without securities that meet the selection criteria

When there are no securities that meet the selection criteria indicated in the security definition request, HF MEFFGate will reply with a Security List message where the field SecurityRequestResult = 2.



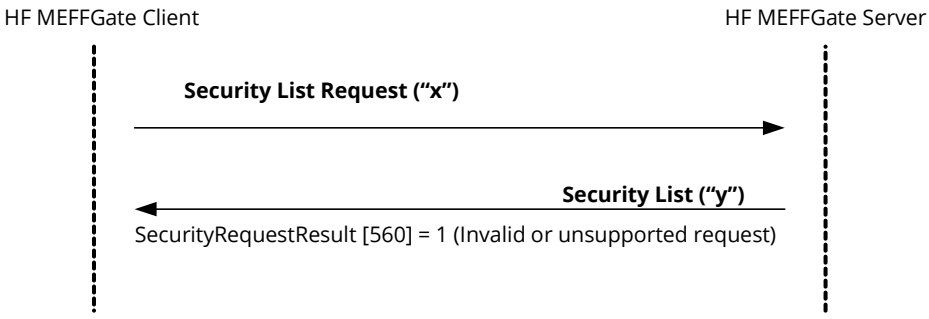
Request security status, without securities that meet the selection criteria

When there are no securities that meet the selection criteria indicated in a security status request, HF MEFFGate replies with a SecurityStatus message where the field SecurityTradingStatus = 19.



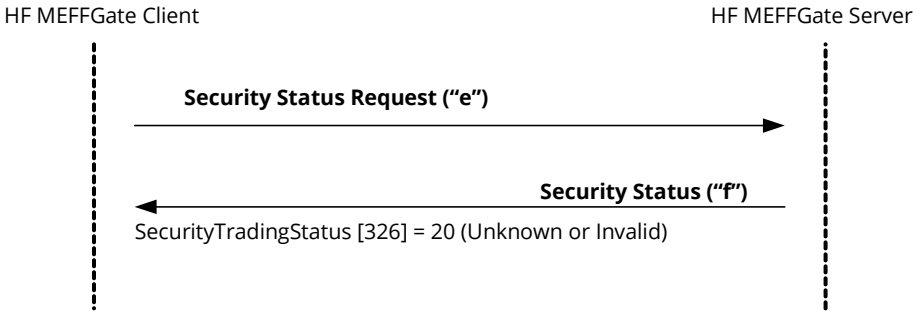
Failed security definition request

When a security definition request is erroneous, it is answered with a Security List message where the field SecurityRequestResult = 1.



Failed security status request

When a security status request is erroneous it is answered with a Security Status message where the field SecurityTradingStatus = 20.



6.3.7 Annotations and adaptations of FIX 5.0

- In the Security List and Security List Update Report messages the field EventType [865] with codes greater than 100 is used. The client application should be prepared to manage this situation in a correct way
- The maximum number of subscriptions is limited (see section 4.2 for details)
- The optional field MoreSubscriptionsFollowing [21500] has been added to the Security List Request y Security Status Request message to group market information subscription requests

6.4 Market information: Prices

6.4.1 Description

This functionality allows to request information on the prices for a number of securities.

6.4.2 Information request

The request for information related to prices is made using the Market Data Request message.

A number of securities can be selected using a combination of fields of the Instrument block as explained in 4.1 .

The types of information offered by MEFF are listed below. A client can request a combination of these types of information in the same request.

- Bid
- Offer
- Last Price
- Opening Price (includes auction prices)
- Settlement Price
- Session High
- Session Low
- Session VWAP Price
- Trade Volume
- Open Interest at the end of the previous session
- Prior settlement price

When a request includes Bid or Offer, it is possible to specify the depth in three modes: maximum, best prices or an exact depth.

In addition to the information listed here, the Bid or Offer request implies receiving RFQ for the contracts selected (See chapter "7 - RFQ" for a detailed explanation).

6.4.3 Receipt of information

HF MEFFGate sends the information requested in Market Data Snapshot Full Refresh messages.

In accordance with the FIX standard, messages in reply to the same request will not mix the Bid and Offer information with other information.

In the event that the request combines Bid or Offer information with other information, the reply will consist of two Market Data Snapshot Full Refresh messages per security.

A new Market Data Snapshot Full Refresh message will be received every time there is a change. For all fields, including bid and offer, if no information is received for an specific field then should be considered that this has not changed since the last update (see chapter 4.4 for more detail). Anyway, the restriction of not mixing Bid or Offer information with other fields is maintained.

Keep in mind that when there are no Bid or Offer prices for a security, this is notified by the value zero in the MDEntrySize [271] field.

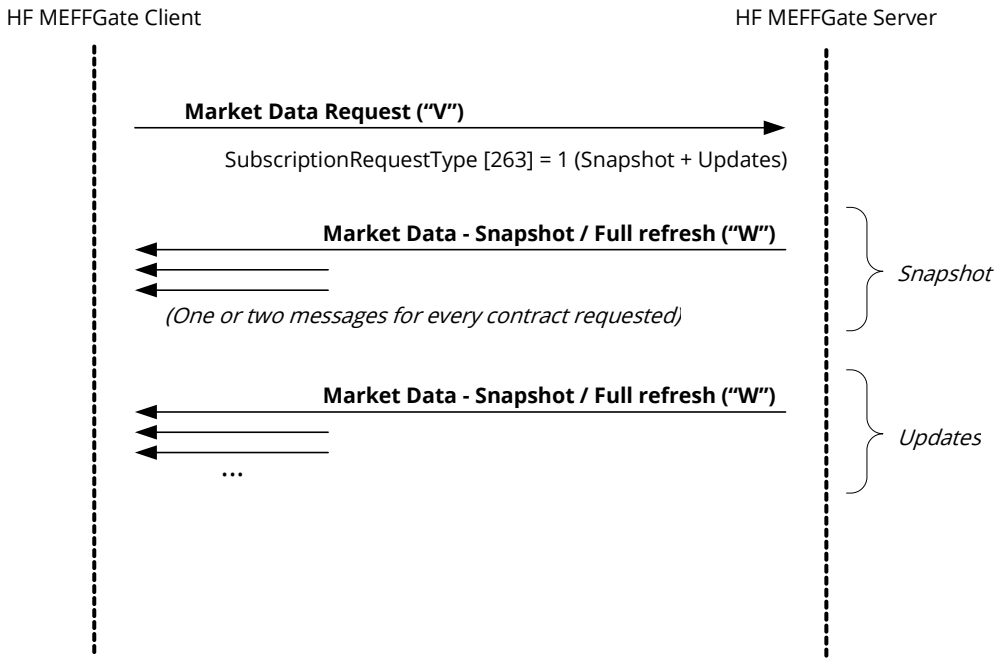
6.4.4 List of messages

Message	Description
Market Data Request (Msg Type = V)	Sent by the client to request price information
Market Data Snapshot Full Refresh (Msg Type = W)	Sent by the server to return price information
Market Data Request Reject (Msg Type = Y)	Sent by the server to notify that a Market Data Request has been rejected

6.4.5 Message flow

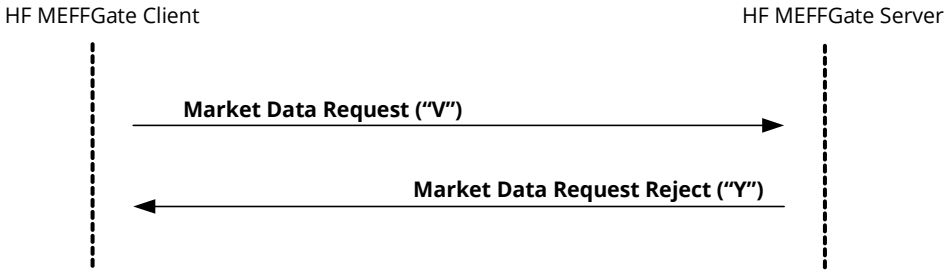
Request for price information

A request for price information initially receives a series of messages for the selected securities at the time of the request. From this moment on it receives messages notifying changes.



Incorrect price and orders information request

When a price and orders information request is incorrect the reply will be a Market Data Request Reject message.



6.4.6 Annotations and adaptations of FIX 5.0

- The maximum number of subscriptions is limited (see section 4.2 for details)
- The Volatility [1188], GrossTradeAmt [381] and TrdMatchID [880] fields have been added to the Market Data Snapshot Full Refresh message
- In the Market Data Snapshot Full Refresh message the field EventType [865] with codes greater than 100 is used. The client application should be prepared to manage this situation in a correct way
- The optional field MoreSubscriptionsFollowing [21500] has been added to the Market Data Request message to group market information subscription requests
- Component block TrdRegTimestamps has been added to the Market Data Snapshot Full Refresh message

6.5 Definition of messages

6.5.1 Trading Session Status Request (Msg Type = g)

Used by the client to request the session status.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = g		
335	TradSesReqID	Y		String (10)	Unique identifier for each Trading Session Status Request message
263	SubscriptionRequestType	Y	1 = Subscribe	Char	If ApplID [1180] + ApplSeqNum [1181] has been provided in the Logon message, only updates from the point indicated will be sent
21500*	MoreSubscriptionsFollowing	N	Y (suggested), N (default)	Boolean	It allows to group market information subscription requests. For more information see “3.6 - Synchronisation at application level”
	Standard Trailer	Y			

6.5.2 Trading Session Status (Msg Type = h)

Sent by the server to inform on the session status or to reject a Trading Session Status Request message.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = h		
1180	ApplID	N		String	Used in conjunction with ApplSeqNum [1181] to indicate, in subsequent connections, the point from which to receive information
1181	ApplSeqNum	N		SeqNum	Used in conjunction with ApplID [1180] to indicate, in subsequent connections, the point from which to receive information
335	TradSesReqID	N		String	Identifier of Trading Session Status Request message for reference. This field is always included in the message
336	TradingSessionID	Y	100 = IBEX futures hours / FX 102 = Cross trades (IBEX futures hours) 105 = Normal hours 106 = Delta and Basis Trade 107 = Bono hours 108 = Cross trades (normal hours) 109 = Cross trades (Bono hours) 115 = RFQ (IBEX futures hours) 116 = RFQ (normal hours) 117 = RFQ (Bono hours) 118 = xRolling on Stocks	String	Trading mode

Tag	Name	Req	Valid values	Format	Description
625	TradingSessionSubID	N	1 = Pre-Trading (Not Started) 2 = Scheduled opening auction 3 = (Continuous) Trading 4 = Scheduled closing auction 5 = Post-Trading 6 = Scheduled intraday auction 9 = Unscheduled intraday auction 10 = Out of Main Session Trading 202 = Not Started 203 = Open 204 = Closed	String	Market assigned sub identifier for a trading phase within a trading session. Valid values within each Trading Mode are: **TradingSessionID [336] = 100 (IBEX futures hours / FX), 105 (Normal hours) and 107 (Bono hours):** 1 = Pre-Trading (Not Started) 2 = Scheduled opening auction 3 = (Continuous) Trading 5 = Post-Trading 9 = Unscheduled intraday auction **TradingSessionID [336] = 102 (Cross trades – IBEX futures hours), 106 (Delta and Basis Trade), 108 (Cross trades - normal hours) and 109 (Cross trades – Bono hours), 115 (RFQ - IBEX futures hours), 116 (RFQ - normal hours), 117 (RFQ - Bono hours) and 118 (xRolling on Stocks):** 202 = Not Started 203 = Open 204 = Closed
325	UnsolicitedIndicator	N	N = The message is part of a snapshot Y = The message is sent due to an update	Boolean	Contains "Y" when the message is sent as the result of a subscription
340	TradSesStatus	Y	1 = Halted 2 = Open 3 = Closed 4 = Pre-Open (Not started) 5 = Pre-Close 6 = Request Rejected	Int	Status. Contains the value 6 (Request Rejected) when the message is used to reject a request.. The value 4 (Pre-Open) indicates that the Trading Mode is not open yet for trading.

Tag	Name	Req	Valid values	Format	Description
					The value 3 (Closed) indicates the end of a Trading Mode and this is always a final state.
58	Text	N		String	Explanation of error. Provided if TradSesStatus = 6
60*	TransactTime	N		UTCTimeStamp	Event time
	Standard Trailer	Y			

6.5.3 Security List Request (Msg Type = x)

Used by the client to request the security definitions and the security status

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = x		
320	SecurityReqID	Y		String (10)	Unique identifier for each Security List Request message
559	SecurityListRequest Type	Y	1	Int	Selection criteria used
	Start <Instrument>				
55	Symbol	Y	[N/A]		Always [N/A]
48	SecurityID	N	See table 7 in document "Codification Tables" for a list of possible values	String	Underlying asset
22	SecurityIDSource	N	8 = Exchange Symbol	String	Required if SecurityID is present.
167	SecurityType	N	See table 6 in document "Codification Tables"	String	Product type
200	MaturityMonthYear	N	YYYYMM or YYYYMMDD or YYYYMMwW	Month-Year	Contract expiration
	End <Instrument>				
263	SubscriptionRequestType	Y	1 = Subscribe	Char	Indicates the type of security status request. If ApplID [1180] + ApplSeqNum [1181] has been provided in the Logon message, only updates from the point indicated will be sent
21500*	MoreSubscriptionsFollowing	N	Y (suggested), N (default)	Boolean	It allows to group market information subscription requests. For more information see "3.6 - Synchronisation at application level"
	Standard Trailer	Y			

6.5.4 Security List (Msg Type = y)

Message sent by the server to provide the definition of one or more securities.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = y		
1180	ApplID	N		String	Used in conjunction with ApplSeqNum [1181] to indicate, in subsequent connections, the point from which to receive information
1181	ApplSeqNum	N		SeqNum	Used in conjunction with ApplID [1180] to indicate, in subsequent connections, the point from which to receive information
320	SecurityReqID	N		String	Identifier of Security List Request message that it is replying to
322	SecurityResponseID	N		String	Unique identifier for each Security List message
560	SecurityRequestResult	N	0=Valid request 1=Invalid or unsupported request 2=No instruments found that match selection criteria 4=Instrument data temporarily unavailable 5=Request was rejected because the SecurityType specified is not supported	Int	Result of request identified by SecurityReqID
393	TotNoRelatedSym	N		Int	Total number of securities that meet the selection criteria in the request. The number of securities that the message contains is indicated in the NoRelatedSym field. This field can be present when SecurityRequestResult = 0
1301	MarketID	N		Exchange	Operating MIC
1300	MarketSegmentID	N		String	Segment MIC

Tag	Name	Req	Valid values	Format	Description
893	LastFragment	N		Boolean	Indicates when the message is the last in a sequence in response to a single request. This field can be present when SecurityRequest-Result = 0
146	NoRelatedSym	N	1	NumInGroup	Indicates the number of securities contained in this message
	Start <Instrument>				
→55	Symbol	N	[N/A] or security code	String(22)	
→48	SecurityID	N	See table 7 in document "Codification Tables" for a list of possible values	String	Underlying asset
→22	SecurityIDSource	N	8 = Exchange Symbol	String	
	Start <SecAltIDGrp>				
→454	NoSecurityAltID	N		NumInGroup	
→→455	SecurityAltID	N		String	• When SecurityAltIDSource [456] = 4, it contains the ISIN code for the contract • When SecurityAltIDSource [456] = J, it contains the FISN for the contract (Finantial Instrument short name in compliance with ISO 18774) • When SecurityAltIDSource [456] = T, it contains the LEI of the issuer
→→456	SecurityAltIDSource	N	4 = ISIN number J = FISN T = LEI of the issuer	String	
	End <SecAltIDGrp>				
→1151	SecurityGroup	N	See table 8 in document "Codification Tables" for a list of values	String	Product family
→461	CFICode	N		String(6)	Contract type in accordance with the ISO 10962 standard

Tag	Name	Req	Valid values	Format	Description
→ 167	SecurityType	N	See table 6 in document “Codification Tables”	String	Product type
→ 762	SecuritySubType	N	See table 9 in document “Codification Tables” for a list of possible values	String	Strategy type
→ 200	MaturityMonthYear	N	YYYYMM or YYYYMMDD or YYYYMMwW	Month-Year	Security expiration
→ 541	MaturityDate	N		LocalMktDate	Expiration date
→ 225	IssueDate	N		LocalMktDate	Date security issued
→ 202	StrikePrice	N		Price	Exercise price. Only present for options
→ 968	StrikeValue	N		Float	For stocks derivatives, number of shares for each security
→ 206	OptAttribute	N		Char	Security version number, provided to support versioning of securities as a result of corporate actiopns or events
→ 231	ContractMultiplier	N		Float	Conversion factor between price units and monetary units
→ 969	MinPriceIncrement	N		Float	Minimum amount allowed for price change when sending an order request
→ 996	UnitOfMeasure	N	Mwh = Megawatt hours	String	The unit of measure of the underlying commodity upon which the contract is based
→ 1193	SettlMethod	N	C = Cash settlement required P = Physical settlement required	Char	Settlement method for this security
→ 1194	ExerciseStyle	N	0 = European 1 = American	Int	Type of exercise of this security
→ 201	PutOrCall	N	0 = Put 1 = Call	Int	Indicates whether an option contract is a put or call
→ 1244	FlexibleIndicator	N	Y = Flexible N = Standard (default)	Boolean	Used to indicate if this security has been defined as flexible according to "non-standard" means.

Tag	Name	Req	Valid values	Format	Description
					When not informed, means "N = Standard "
→ 107	SecurityDesc	N	See table 5 in document “Codification Tables”	String	Description of the contract subgroup
	Start <EvntGrp>				
→ 864	NoEvents	N		NumInGroup	
→→ 865	EventType	N	101 = Last trading day 114 = Number of decimals in the price for this security 132 = Maximum number of decimals allowed in orders 146 = LIS-pre limit (Large in Scale) 147 = SSTI-pre limit (Size Specific to Instrument) 148 = LIS-post limit (Large in Scale) 149 = SSTI-post limit (Size Specific to Instrument) 150 = Liquid instrument 151 = Adjustments rule 152 = Limit cap above which orders are not permitted	Int	

Tag	Name	Req	Valid values	Format	Description
			153 = Security admits self-match prevention 154 = Security request for admission to trading by issuer 155 = Commodity derivative Indicator to indicate whether the security falls within the definition of commodities derivative under Article 2(1)(30) of Regulation (EU) No 600/2014 156 = Trading obligation. Indicates whether the security has to be traded in a regulated exchange 159 = Contains the stock in case the underlying is the dividend of the stock 160 = Base product 161 = Sub product 162 = Further sub product		

Tag	Name	Req	Valid values	Format	Description
			167 = xRolling closing type 168 = xRolling Buyer financing rate 169 = xRolling buyer rate markup 170 = xRolling seller financing rate 171 = xRolling seller rate markup 172 = xRolling Dividend settlement percentage 173 = xRolling differential between payment date and receipt of ordinary dividend flow		
→→ 866	EventDate	N		LocalMktDate	Last trading day, when EventType = 101
→→ 868	EventText	N		String	If EventType = 114, it contains the number of decimals in the price for this security If EventType = 132, it contains the maximum number of decimals allowed in orders If EventType = 146, it contains the LIS-pre limit (Large in Scale) If EventType = 147, it contains the SSTI-pre limit (Size Specific to Instrument) If EventType = 148, it contains the LIS-post limit (Large in Scale)

Tag	Name	Req	Valid values	Format	Description
					If EventType = 149, it contains the SSTI-post limit (Size Specific to Instrument) If EventType = 150, indicates whether the security is Liquid or Illiquid: Y – Liquid N – Illiquid If EventType = 151, it contains the adjustments rule: E – Extraordinary dividend adjustments only T - Total If EventType = 152, it contains the Nominal limit cap above which orders are not permitted If EventType = 153, it indicates whether the Security admits self-match prevention or not: Y – It admits self-match prevention N – It doesn't admit self-match prevention If EventType = 154, indicates whether the security is request for admission to trading by issuer or by Exchange own initiative: Y – Request for admission to trading by issuer N – Request for admission to trading by Exchange own initiative If EventType = 155, indicates whether the security falls within the definition of commodities derivative under Article 2(1)(30) of Regulation (EU) No 600/2014: Y – It is a Commodity derivative N – It is NOT a Commodity derivative If EventType = 156, indicates whether the security has to be traded in a regulated exchange (Trading Obligation): Y – Yes

Tag	Name	Req	Valid values	Format	Description
					N – No If EventType = 159, it contains If EventType = 159, it contains the stock in case the underlying is the dividend of the stock If EventType = 160, 161 or 162, it contains the classification of commodity derivatives (see table 11 in document “Codification Tables”) If EventType = 167, it indicates if the xRolling can be closed by any of the counterparties before the expiry date. M: Market (Default value). Value to be used in FLEX xRolling with a closed expiry date and no possibility to modify it. 1: By buyer 2: By seller A: By both If EventType = 168, it contains the Buyer Financing Rate S: €STR (Default value for non-FLEX xRolling) F: FISAnalitics M: MEFF rate 0: Zero ‘ ‘: N/A (used in FLEX, in the financing leg) If EventType = 169, it contains the buyer rate markup From -100.0000 to 100.0000 If EventType = 170, it contains the Seller Financing Rate S: €STR (Default value for non-FLEX xRolling) F: FISAnalitics M: MEFF rate 0: Zero ‘ ‘: N/A (used in FLEX, in the financing leg) If EventType = 171, , it contains the seller rate markup From -100.0000 to 100.0000

Tag	Name	Req	Valid values	Format	Description
					If EventType = 172, it contains the Dividend settlement percentage From 0.00 to 100.00 If EventType = 173, it contains the differential between payment date and receipt of ordinary dividend flow 0-999
	End <EvntGrp>				
	Start < ComplexEvents >				
→ 1483	NoComplexEvents	N	1	NumInGroup	
→→ 1484	ComplexEventType	N	16 = Foreign exchange cross currency	Int	
→→ 2124	ComplexEventCurrencyOne	N		Currency	Base currency code. Follows ISO 4217 standard
→→ 2125	ComplexEventCurrencyTwo	N		Currency	Quoted currency code. Follows ISO 4217 standard
	End < ComplexEvents >				
	End <Instrument>				
	Start <SecurityTradingRules>				
	Start <BaseTradingRules>				
→ 562	MinTradeVol	N		Qty	The minimum trading volume for an order of this security
→ 561	RoundLot	N		Qty	The trading lot size. The order volumes of this security must be a multiple of this quantity.
	End <BaseTradingRules>				
	End <SecurityTradingRules>				
	Start <StrikeRules>				
→ 1201	NoStrikeRules	N	1	NumInGroup	
→→ 1223	StrikeRuleID	N	[N/A]	String	
	Start <MaturityRules>				
→→ 1236	NoMaturityRules	N	1	NumInGroup	
→→ → 1222	MaturityRuleID	N	[N/A]	String	

Tag	Name	Req	Valid values	Format	Description
→→→ 1302	MaturityMonthYearIncrementUnits	N	0 = Months 1 = Days 2 = Weeks 3 = Years	Int	Periodicity
→→→ 1241	StartMaturityMonthYear	N	YYYYMMDD	Month-Year	Start delivery date for Energy segment contracts
→→→ 1226	EndMaturityMonthYear	N	YYYYMMDD	Month-Year	End delivery date for Energy segment contracts
→→→ 1229	MaturityMonthYearIncrement	N		Int	
	End < MaturityRules >				
	End <StrikeRules>				
→ 711	NoUnderlyings	N	1	NumInGroup	Present if the security has another security as its underlying
	Start <UnderlyingInstrument>				
→→ 311	UnderlyingSymbol	N		String(22)	Symbol for underlying security
→→ 457	NoUnderlyingSecurityAltID	N		NumInGroup	
→→→ 458	UnderlyingSecurityAltID	N		String	When UnderlyingSecurityAltIDSource [459] = T, it contains the LEI of the underlying issuer
→→→ 459	UnderlyingSecurityAltIDSource	N	T = LEI of the underlying issuer	String	
→→ 318	UnderlyingCurrency	N		Currency	Currency code of the underlying security. Follows ISO 4217 standard
	End <UnderlyingInstrument>				
→15	Currency	N		Currency	Currency code. Follows ISO 4217 standard
	Start <Stipulations>				
→ 232	NoStipulations	N		NumInGroup	
→→ 233	StipulationType	N	100 = IBEX futures hours / FX 102 = Cross trades (IBEX futures hours)	String	Trading Mode

Tag	Name	Req	Valid values	Format	Description
			105 = Normal hours 106 = Delta and Basis Trade 107 = Bono hours 108 = Cross trades (normal hours) 109 = Cross trades (Bono hours) 115 = RFQ (IBEX futures hours) 116 = RFQ (normal hours) 117 = RFQ (Bono hours) 118= xRolling on Stocks		
→→ 234	StipulationValue	N		String	Indicates the valid Trading Modes for this security. The possible values are Y/N. If it's not sent, means 'N'
	End <Stipulations>				
→ 555	NoLegs	N		NumInGroup	Only present in time-spread or strategies contracts
→→	Start <InstrumentLeg>				
→→ 600	LegSymbol	N		String(22)	Contract code. Present if NoLegs has been specified
→→ 623	LegRatioQty	N		Float	The ratio of quantity for this individual leg relative to the entire multileg security
→→ 624	LegSide	N	1 = Buy 2 = Sell	Char	Indicates if the contract LegSymbol is to buy or sell. Present if NoLegs has been specified
→→ 566	LegPrice	N		Price	Price for this leg

Tag	Name	Req	Valid values	Format	Description
	End <InstrumentLeg>				
→58	Text	N		String	Security description If SecurityRequestResult [560] > 0 contains an explanation of the error
	Standard Trailer	Y			

6.5.5 Security List Update Report (Msg Type = BK)

Message sent by the server for reporting updates, during the session, to the security definition.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = BK		
1180	ApplID	N		String	Used in conjunction with ApplSeqNum [1181] to indicate, in subsequent connections, the point from which to receive information
1181	ApplSeqNum	N		SeqNum	Used in conjunction with ApplID [1180] to indicate, in subsequent connections, the point from which to receive information
964	SecurityReportID	N		String	Unique identifier for each Security List Update Report message
320	SecurityReqID	N		String	Identifier of Security List Request message that it is replying to
980	SecurityUpdateAction	N	A – Add D – Delete M - Modify	Char	
1301	MarketID	N		Exchange	Operating MIC
1300	MarketSegmentID	N		String	Segment MIC
60	TransactTime	N		UTCTimeStamp	Event time
146	NoRelatedSym	N	1	NumInGroup	Indicates the number of securities contained in this message
	Start <Instrument>				
→55	Symbol	N		String(22)	Security code
→48	SecurityID	N	See table 7 in document “Codification Tables” for a list of possible values	String	Underlying asset
→22	SecurityIDSource	N	8 = Exchange Symbol	String	
	Start <SecAltIDGrp>				
→ 454	NoSecurityAltID	N		NumInGroup	
→→ 455	SecurityAltID	N		String	• When SecurityAltIDSource [456] = 4, it contains the ISIN code for the contract • When SecurityAltIDSource [456] = J, it contains the FISN for the contract (Finantial Instrument short name in compliance with ISO 18774)

Tag	Name	Req	Valid values	Format	Description
					• When SecurityAltIDSource [456] = T, it contains the LEI of the issuer
→→ 456	SecurityAltIDSource	N	4 = ISIN number J = FISN T = LEI of the issuer	String	
	End <SecAltIDGrp>				
→ 1151	SecurityGroup	N	See table 8 in document "Codification Tables" for a list of values	String	Product family
→ 461	CFICode	N		String(6)	Contract type in accordance with the ISO 10962 standard
→ 167	SecurityType	N	See table 6 in document "Codification Tables"	String	Product type
→ 762	SecuritySubType	N	See table 9 in document "Codification Tables" for a list of possible values	String	Strategy type
→ 200	MaturityMonthYear	N	YYYYMM or YYYYMMDD or YYYYMMwW	Month-Year	Security expiration
→ 541	MaturityDate	N		LocalMktDate	Expiration date
→ 225	IssueDate	N		LocalMktDate	Date security issued
→ 202	StrikePrice	N		Price	Exercise price. Only present for options
→ 968	StrikeValue	N		Float	For stocks derivatives, number of shares for each security
→ 206	OptAttribute	N		Char	Security version number, provided to support versioning of securities as a result of corporate actions or events
→ 231	ContractMultiplier	N		Float	Conversion factor between price units and monetary units
→ 969	MinPriceIncrement	N		Float	Minimum amount allowed for price change when sending an order request
→ 996	UnitOfMeasure	N	Mwh = Megawatt hours	String	The unit of measure of the underlying commodity upon which the contract is based

Tag	Name	Req	Valid values	Format	Description
→ 1193	SettlMethod	N	C = Cash settlement required P = Physical settlement required	Char	Settlement method for this security
→ 1194	ExerciseStyle	N	0 = European 1 = American	Int	Type of exercise of this security
→ 201	PutOrCall	N	0 = Put 1 = Call	Int	Indicates whether an option contract is a put or call
→ 1244	FlexibleIndicator	N	Y = Flexible N = Standard (default)	Boolean	Used to indicate if this security has been defined as flexible according to "non-standard" means. When not informed, means "N = Standard "
→ 107	SecurityDesc	N	See table 5 in document “Codification Tables”	String	Description of the contract subgroup
	Start < EvntGrp >				
→ 864	NoEvents	N		NumInGroup	
→→ 865	EventType	N	101 = Last trading day 114 = Number of decimals in the price for this security 132 = Maximum number of decimals allowed in orders 146 = LIS-pre limit (Large in Scale) 147 = SSTI-pre limit (Size Specific to Instrument) 148 = LIS-post limit (Large in Scale)	Int	

Tag	Name	Req	Valid values	Format	Description
			149 = SSTI-post limit (Size Specific to Instrument) 150 = Liquid instrument 151 = Adjustments rule 152 = Nominal limit cap above which orders are not permitted 153 = Security admits self-match prevention 154 = Security request for admission to trading by issuer 155 = Commodity derivative Indicator to indicate whether the security falls within the definition of commodities derivative under Article 2(1)(30) of Regulation (EU) No 600/2014		

Tag	Name	Req	Valid values	Format	Description
			156 = Trading obligation. Indicates whether the security has to be traded in a regulated exchange 159 = Contains the stock in case the underlying is the dividend of the stock 160 = Base product 161 = Sub product 162 = Further sub product 167 = xRolling closing type 168 = xRolling Buyer financing rate 169 = xRolling buyer rate markup 170 = xRolling seller financing rate 171 = xRolling seller rate markup 172 = xRolling Dividend settlement percentage		

Tag	Name	Req	Valid values	Format	Description
			173 = xRolling differential between payment date and receipt of ordinary dividend flow		
→→ 866	EventDate	N		LocalMktDate	Last trading day, when EventType = 101
→→ 868	EventText	N		String	If EventType = 114, it contains the number of decimals in the price for this security If EventType = 132, it contains the maximum number of decimals allowed in orders If EventType = 146, it contains the LIS-pre limit (Large in Scale) If EventType = 147, it contains the SSTI-pre limit (Size Specific to Instrument) If EventType = 148, it contains the LIS-post limit (Large in Scale) If EventType = 149, it contains the SSTI-post limit (Size Specific to Instrument) If EventType = 150, indicates whether the security is Liquid or Illiquid: Y – Liquid N – Illiquid If EventType = 151, it contains the adjustments rule: E – Extraordinary dividend adjustments only T - Total If EventType = 152, it contains the Nominal limit cap above which orders are not permitted If EventType = 153, it indicates whether the Security admits self-match prevention or not: Y – It admits self-match prevention

Tag	Name	Req	Valid values	Format	Description
					N – It doesn't admit self-match prevention If EventType = 154, indicates whether the security is request for admission to trading by issuer or by Exchange own initiative: Y – Request for admission to trading by issuer N – Request for admission to trading by Exchange own initiative If EventType = 155, indicates whether the security falls within the definition of commodities derivative under Article 2(1)(30) of Regulation (EU) No 600/2014: Y – It is a Commodity derivative N – It is NOT a Commodity derivative If EventType = 156, indicates whether the security has to be traded in a regulated exchange (Trading Obligation): Y – Yes N – No If EventType = 159, it contains the stock in case the underlying is the dividend of the stock If EventType = 160, 161 or 162, it contains the classification of commodity derivatives (see table 11 in document "Codification Tables") If EventType = 167, it indicates if the xRolling can be closed by any of the counterparties before the expiry date. M: Market (Default value). Value to be used in FLEX xRolling with a closed expiry date and no possibility to modify it. 1: By buyer 2: By seller A: By both

Tag	Name	Req	Valid values	Format	Description
					If EventType = 168, it contains the Buyer Financing Rate S: €STR (Default value for non-FLEX xRolling) F: FISAnalitics M: MEFF rate 0: Zero ' ': N/A (used in FLEX, in the financing leg) If EventType = 169, it contains the buyer rate markup From -100.0000 to 100.0000 If EventType = 170, it contains the Seller Financing Rate S: €STR (Default value for non-FLEX xRolling) F: FISAnalitics M: MEFF rate 0: Zero ' ': N/A (used in FLEX, in the financing leg) If EventType = 171, , it contains the seller rate markup From -100.0000 to 100.0000 If EventType = 172, it contains the Dividend settlement percentage From 0.00 to 100.00 If EventType = 173, it contains the differential between payment date and receipt of ordinary dividend flow 0-999
	End < EvntGrp >				
	Start < ComplexEvents >				
→ 1483	NoComplexEvents	N	1	NumInGroup	
→→ 1484	ComplexEventType	N	16 = Foreign exchange cross currency	Int	
→→ 2124	ComplexEventCurrencyOne	N		Currency	Base currency code. Follows ISO 4217 standard
→→ 2125	ComplexEventCurrencyTwo	N		Currency	Quoted currency code. Follows ISO 4217 standard

Tag	Name	Req	Valid values	Format	Description
	End < ComplexEvents >				
	End < Instrument >				
	Start <SecurityTradingRules>				
	Start <BaseTradingRules>				
→ 562	MinTradeVol	N		Qty	The minimum trading volume for an order of this security
→ 561	RoundLot	N		Qty	The trading lot size. The order volumes of this security must be a multiple of this quantity.
	End <BaseTradingRules>				
	End <SecurityTradingRules>				
	Start <StrikeRules>				
→ 1201	NoStrikeRules	N	1	NumInGroup	
→→ 1223	StrikeRuleID	N	[N/A]	String	
	Start <MaturityRules>				
→→ 1236	NoMaturityRules	N	1	NumInGroup	
→→ → 1222	MaturityRuleID	N	[N/A]	String	
→→ → 1302	MaturityMonthYearIncrementUnits	N	0 = Months 1 = Days 2 = Weeks 3 = Years	Int	Periodicity
→→ → 1241	StartMaturityMonthYear	N	YYYYMMDD	Month-Year	Start delivery date for Energy segment contracts
→→ → 1226	EndMaturityMonthYear	N	YYYYMMDD	Month-Year	End delivery date for Energy segment contracts
→→ → 1229	MaturityMonthYearIncrement	N		Int	
	End < MaturityRules >				
	End <StrikeRules>				
→ 711	NoUnderlyings	N	1	NumInGroup	Present if the security has another security as its underlying

Tag	Name	Req	Valid values	Format	Description
	Start <UnderlyingInstrument>				
→→ 311	UnderlyingSymbol	N		String(22)	Symbol for underlying security
→→ 457	NoUnderlyingSecurityAltID	N		NumInGroup	
→→ → 458	UnderlyingSecurityAltID	N		String	When UnderlyingSecurityAltIDSource [459] = T, it contains the LEI of the underlying issuer
→→ → 459	UnderlyingSecurityAltIDSource	N	T = LEI of the underlying issuer	String	
→→ 318	UnderlyingCurrency	N		Currency	Currency code of the underlying and strike. Follows ISO 4217 standard
	End <UnderlyingInstrument>				
→15	Currency	N		Currency	Currency code. Follows ISO 4217 standard
	Start <Stipulations>				
→ 232	NoStipulations	N		NumInGroup	
→→ 233	StipulationType	N	100 = IBEX futures hours / FX 102 = Cross trades (IBEX futures hours) 105 = Normal hours 106 = Delta and Basis Trade 107 = Bono hours 108 = Cross trades (normal hours) 109 = Cross trades (Bono hours) 115 = RFQ (IBEX futures hours)	String	Trading Mode

Tag	Name	Req	Valid values	Format	Description
			116 = RFQ (normal hours) 117 = RFQ (Bono hours) 118 = xRolling on Stocks		
→→ 234	StipulationValue	N		String	Indicates the valid Trading Modes for this security. The possible values are Y/N. If it's not sent, means 'N'
	End <Stipulations>				
→ 555	NoLegs	N		NumInGroup	Only present in time-spread or strategies contracts
→→	Start <InstrumentLeg>				
→→ 600	LegSymbol	N		String(22)	Contract code. Present if NoLegs has been specified
→→ 623	LegRatioQty	N		Float	The ratio of quantity for this individual leg relative to the entire multileg security
→→ 624	LegSide	N	1 = Buy 2 = Sell	Char	Indicates if the contract LegSymbol is to buy or sell. Present if NoLegs has been specified
→→ 566	LegPrice	N		Price	Price for this leg
	End <InstrumentLeg>				
→58	Text	N		String	Security description
	Standard Trailer	Y			

6.5.6 Security Status Request (MsgType = e)

Used by the client to request the status of securities.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = e		
324	SecurityStatusReqID	Y		String (10)	Unique identifier for each Security Status Request message
	Start <Instrument>				
55	Symbol	Y	[N/A]		Always [N/A]
48	SecurityID	N	See table 7 in document "Codification Tables" for a list of possible values	String	Underlying asset
22	SecurityIDSource	N	8 = Exchange Symbol	String	Required if SecurityID is present
167	SecurityType	N	See table 6 in document "Codification Tables"	String	Product type
200	MaturityMonthYear	N	YYYYMM or YYYYMMDD or YYYYMMwW	Month-Year	Contract expiration
	End <Instrument>				
263	SubscriptionRequestType	Y	1 = Subscribe	Char	If ApplID [1180] + ApplSeqNum [1181] has been provided in the Logon message, only updates from the point indicated will be sent
21500*	MoreSubscriptionsFollowing	N	Y (suggested), N (default)	Boolean	It allows to group market information subscription requests. For more information see "3.6 - Synchronisation at application level"
	Standard Trailer	Y			

6.5.7 Security Status (MsgType = f)

Message sent by the server to inform on the status of one security.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = f		
1180	ApplID	N		String	Used in conjunction with ApplSeqNum [1181] to indicate, in subsequent connections, the point from which to receive information
1181	ApplSeqNum	N		SeqNum	Used in conjunction with ApplID [1180] to indicate, in subsequent connections, the point from which to receive information
324	SecurityStatusReqID	N		String	Identifier of the Security Status Request message being replied to. This field is always included in the message
	Start <Instrument>				
55	Symbol	Y	[N/A] or security code	String(22)	Security code. It contains [N/A] when the message corresponds to a set of contracts or when SecurityTradingStatus [326] = 20 (Unknown or invalid)
48	SecurityID	N	See table 7 in document "Codification Tables" for a list of possible values	String	Underlying asset. If not specified means "for all the underlying assets"
454	NoSecurityAltID	N		NumInGroup	
→ 455	SecurityAltID	N		String	• When SecurityAltIDSource [456] = 4, it contains the ISIN security code
→ 456	SecurityAltIDSource	N	4 = ISIN number	String	
22	SecurityIDSource	N	8 = Exchange Symbol	String	Present if SecurityID has been specified
1151	SecurityGroup	N	See table 8 in document "Codification Tables" for a list of values	String	Product family. If not specified means "for all the product families"
167	SecurityType	N	See table 6 in document "Codification Tables"	String	Product type. If not specified means "for all the product types"
200	MaturityMonthYear	N	YYYYMM or YYYYMMDD or YYYYMMwW	Month-Year	Contract expiration.

Tag	Name	Req	Valid values	Format	Description
					If not specified means “for all the contract expirations”
	End <Instrument>				
325	UnsolicitedIndicator	N	N = The message is part of a snapshot Y = The message is sent as the result of an update	Boolean	Contains “Y” when the message is sent due to a subscription, and otherwise “N”. This field is always present in the message
326	SecurityTradingStatus	N	17 = Ready to trade 18 = Not available for trading 19 = Not Traded on this Segment 20 = Unknown or Invalid 21 = Pre-Open 23 = Fast Market 100 = Extraordinary Market Conditions	Int	Informs on the security status. The value “21” indicates that the security or product family is under auction. This value must not be confused with the “Pre-Open” segment status, which indicates that no security can be traded. (See field 340, TradSesStatus, of the Trading Session Status message). To evaluate this tag, TradSesStatus [340] in the Trading Session Status message must also be taken into account.
327	HaltReason	N	100 = Halted by Regulator 101 = Halted by Market Surveillance	Int	Halt reason
332	HighPx	N		Price	Maximum price accepted for a contract. This value may vary during a trading session
333	LowPx	N		Price	Minimum price accepted for a contract. This value may vary during a trading session
60	TransactTime	N		UTCTimeStamp	Event time
58	Text	N		String	Contains an explanation of the error. May be provided if SecurityTradingStatus = 19 or 20
	Standard Trailer	Y			

6.5.8 Market Data Request (Msg Type = V)

Used by the client to request price information.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = V		
262	MDReqID	Y		String (10)	Unique identifier for each Market Data Request message
263	SubscriptionRequestType	Y	1 = Subscribe	Char	If ApplID [1180] + ApplSeqNum [1181] has been provided in the Logon message, only updates from the point indicated will be sent
264	MarketDepth	Y	0 = Full Book 1 = Top of Book n = exact depth (n>1)	Int	Prices depth Ignored if none of the MDEntryType occurrences are Bid or Offer
265	MDUpdateType	N	0 = Full refresh	Int	Required if SubscriptionRequestType = 1
267	NoMDEntryTypes	Y		NumInGroup	Number of MDEntryType fields that contain the message
→269	MDEntryType	Y	0 = Bid 1 = Offer 2 = Trade (last) 4 = Opening Price 6 = Settlement Price 7 = Trading Session High Price 8 = Trading Session Low Price 9 = Trading session VWAP price B = Trade Volume (total volume for security in session) C = Open Interest M = Prior Settle Price N = Session High Bid O = Session Low Offer	Char	Type of market information requested
146	NoRelatedSym	Y	1	NumInGroup	Number of selection criteria
	Start <Instrument>				

Tag	Name	Req	Valid values	Format	Description
→55	Symbol	Y	[N/A]	String	Always [N/A]
→48	SecurityID	N	See table 7 in document "Codification Tables" for a list of possible values	String	Underlying asset
→22	SecurityIDSource	N	8 = Exchange Symbol	String	Required if the SecurityID has been specified
→167	SecurityType	N	See table 6 in document "Codification Tables"	String	Product type
→200	MaturityMonthYear	N	YYYYMM or YYYYMMDD or YYYYMMwW	Month-Year	Contract expiration
	End <Instrument>				
21500*	MoreSubscriptionsFollowing	N	Y (suggested), N (default)	Boolean	It allows to group market information subscription requests. For more information see "3.6 - Synchronisation at application level"
	Standard Trailer	Y			

6.5.9 Market Data Request Reject (Msg Type = Y)

Used by HF MEFFGate to reject a Market Data Request.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = Y		
262	MDReqID	Y		String	Identifier of the request being rejected
281	MDReqRejReason	N	0 = Invalid selection criteria 1 = Duplicate MDReqID 4 = Unsupported SubscriptionRequestType 5 = Unsupported MarketDepth 6 = Unsupported MDUpdateType 8 = Unsupported MDEntryType	Char	Reason for rejection. This field is always present in the message
58	Text	N		String	Explanation of rejection motive
	Standard Trailer	Y			

6.5.10 Market Data Snapshot Full Refresh (Msg Type = W)

Used by HF MEFFGate to communicate price information requested with a Market Data Request message.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = W		
1180	ApplID	N		String	Used in conjunction with ApplSeqNum [1181] to indicate, in subsequent connections, the point from which to receive information
1181	ApplSeqNum	N		SeqNum	Used in conjunction with ApplID [1180] to indicate, in subsequent connections, the point from which to receive information
262	MDReqID	N		String	Identifier of the Market Data Request message that is being replied to
1500	MDStreamID	N		String	In case of information about RFQ responses, it contains the corresponding IOIID
1301	MarketID	N		Exchange	Operating MIC
1300	MarketSegmentID	N		String	Segment MIC
	Start <Instrument>				
55	Symbol	Y	Security code	String(22)	Security code
454	NoSecurityAltID	N		NumInGroup	
→ 455	SecurityAltID	N		String	• When SecurityAltIDSource [456] = 4, it contains the ISIN security code
→ 456	SecurityAltIDSource	N	4 = ISIN number	String	
864	NoEvents	N		NumInGroup	May be present in a trade or in settlement prices
→ 865	EventType	N	201 = Original trade type (in a countertrade or trade amendment case)	Int	

Tag	Name	Req	Valid values	Format	Description
			204 = Trade registration number of the countertrade or trade amendment. In a trade corresponding to legs of a strategy it contains the Trade registration number of the trade in the strategy 205 = Price of the trade in the case where it does not change the last price 206 = Origin of the trade 211 = Transaction category MMT: • Package Trade (excluding Exchange for Physicals) "TPAC" • Exchange for Physicals Trade "XFPH" 212 = Pre- and Post-transparency flags 213 = Current Forward price		

Tag	Name	Req	Valid values	Format	Description
			214 = Previous Forward price		
→ 867	EventPx	N		Price	Present when EventType = 205, 213 or 214
→ 868	EventText	N		String	Present when EventType [865] = 201, 204, 206, 211, 212 When EventType [865] = 201 the valid values are: • 0 (for a Market trade type), • TrdSubType [829] (for the rest of the trade types) When EventType [865] = 206 the valid values are: For trades originated from orders: 1 (the trade comes from the Continuous Trading), 2 (the trade comes from an Opening Auction), 3 (the trade comes from a Closing Auction), 4 (the trade comes from a Volatility Auction), 5 (the trade comes from a Manual Auction) When EventType [865] = 211: Level 3.1 - Transaction category MMT model. Maybe informed when MDEntryType is 2: • Z = Package Trade (excluding Exchange for Physicals) "TPAC" • Y = Exchange for Physicals Trade "XFPH" When EventType [865] = 212: It contains the trade pre-transparency and post-transparency flags accordingly MiFID II directive. Different flags are enclosed by doubled quotes (") and separated by a comma. Maybe informed when MDEntryType is 2
	End <Instrument>				
268	NoMDEntries	Y		NumInGroup	Number of entries to follow
→ 269	MDEntryType	Y	0 = Bid 1 = Offer	Char	Type of information that the present entry contains.

Tag	Name	Req	Valid values	Format	Description
			2 = Trade (last) 4 = Opening Price 6 = Settlement Price 7 = Trading Session High Price 8 = Trading Session Low Price 9 = Trading session VWAP price B = Trade Volume (total volume for security in session) C = Open Interest E = Estimated buy mid-price (RFQ) F = Estimated sell mid-price (RFQ) M = Prior Settle Price N = Session High Bid O = Session Low Offer		If the values 0 or 1 are present, the message does not contain any of the others
→ 270	MDEntryPx	N		Price	Price. Present when the MDEntryType is (0,1,2,4,6,7,8,9,E,F,M,N,O). When it is not present and MDEntryType is 2, see EventPx [867] when EventType [865] = 205

Tag	Name	Req	Valid values	Format	Description
					When it is not present and MDEntryType is 6, it should be considered as a value 0 When MDEntryType = 0 or 1 and there are only Market orders: MDEntryPx [270] = 0 (MDEntrySize [271] > 0)
→ 271	MDEntrySize	N		Qty	Volume. Present when the MDEntryType is (0,1,2,B,C,E,F) For value "C", it contains the open interest at the beginning of the trading session.
→ 273	MDEntryTime	N		UTCTimeOnly	Time of Market Data entry for MDEntryType [269] = 0 (Bid), 1 (Offer), E (Estimated buy mid-price - RFQ), F (Estimated sell mid-price - RFQ) or 6 (Settlement Price) When MDEntryType [269] = 0 (Bid) or 1 (Offer), It is only present for one of the values (MDPriceLevel = 1) and it refers to the update of Bid and Offer in general.
→ 21507*	RetailClFlag	N	Y = At least one of the orders that make up this price has the 'retail client indicator' active N = No order with an active 'retail client indicator' is involved in the volume (default)	Boolean	Retail Client Indicator. Present when the MDEntryType is (0,1) Indicates if any order that make up the price has the 'retail client indicator' active
→ 336	TradingSessionID	N	100 = IBEX futures hours / FX 102 = Cross trades (IBEX futures hours) 105 = Normal hours	String	Trading mode Present when MDEntryType = 0,1,E,F and also when MDEntryType =2 (Trade) with TrdMatchID [880] informed

Tag	Name	Req	Valid values	Format	Description
			106 = Delta and Basis Trade 107 = Bono hours 108 = Cross trades (normal hours) 109 = Cross trades (Bono hours) 115 = RFQ (IBEX futures hours) 116 = RFQ (normal hours) 117 = RFQ (Bono hours) 118 = xRolling on Stocks		
→ 277	TradeCondition	N	6 = Benchmark Trade "BENC"	MultipleStringValue	Level 3.5 - Benchmark or Reference Price Indicator indicator MMT model Maybe present if MDEntryType is 2
	Start <TradePriceConditionGrp>				
→ 1838	NoTradePriceConditions	N		NumInGroup	
→→ 1839	TradePriceCondition	N	15 = Non-Price Forming Trade (formerly defined as a Technical Trade) "NPFT"	Int	Level 3.8 - Ordinary/Standard Trades or Trades Outside Price Formation / Discovery Process MMT model Maybe present if MDEntryType is 2
	End <TradePriceConditionGrp>				
→ 2667	AlgorithmicTradeIndicator	N	0 = No Algorithmic trade 1 = Algorithmic trade "ALGO"	MultipleStringValue	Level 3.9 - Algorithmic Indicator MMT model Maybe present if MDEntryType is 2

Tag	Name	Req	Valid values	Format	Description
→ 346	NumberOfOrders	N		Int	When MDEntryType = 0 or 1 indicates the number of orders at this price
→ 1023	MDPriceLevel	N		Int	Level of a bid or offer at a given price level. Numbered from the most to the least competitive per market side, starting with 1. Present if MDEntryType is 0 or 1
→ 1024	MDOriginType	N	0 = Central Limit Order Book 1 = Off Book (including Voice or Messaging Trading) 3 = Quote Driven Market 4 = Dark Order Book 5 = Periodic Auction 6 = Request for Quotes	Int	Level 1 - Market Mechanism MMT model Maybe present if MDEntryType is 2
→ 811	PriceDelta	N		float	Maybe present if MDEntryType = 6 or M
→ 828	TrdType	N	See table 4 in document “Codification Tables”	Int	Trade Type. Maybe present if MDEntryType is 2. This value is used in conjunction with TrdSubType [829]
→ 829	TrdSubType	N	See table 4 in document “Codification Tables”	Int	Maybe present if MDEntryType is 2. This value is used in conjunction with TrdType [828]
→ 1934	RegulatoryReportType	N	11 = Limited details trade "LMTF" 12 = Daily aggregated trade "DATF" 13 = Volume omission trade "VOLO"	Int	Level 4.2 - Post-Trade deferral or Enrichment MMT model Maybe present if MDEntryType is 2

Tag	Name	Req	Valid values	Format	Description
			14 = Four weeks aggregation trade "FWAF" 15 = Indefinite aggregation trade "IDAF" 16 = Volume omission trade. Eligible for subsequent enrichment in aggregated form "VOLW" 17 = Full details of previous LMTF "FULF" 18 = Full details of previous DATF "FULA" 19 = Full details of previous VOLO "FULV" 20 = Full details of previous FWAF "FULJ" 21 = Full details of previous VOLW "COAJ"		
→ 1390	TradePublishIndicator	N	1 = Immediate Publication 2 = Non-Immediate Publication	Int	Level 4.1 - Publication Mode / Post-Trade Deferral Reason MMT model (see also TrdRegPublicationType [2669] + TrdRegPublicationReason [2670]) Maybe present if MDEntryType is 2
	Start <TrdRegPublicationGrp>				
→ 2668	NoTrdRegPublications	N		NumInGroup	
→→ 2669	TrdRegPublicationType	N	0 = Pre-trade transparency waiver	Int	Value 0: Level 3.5 - Benchmark or Reference Price Indicator indicator MMT model (see also TrdRegPublicationReason [2670])

Tag	Name	Req	Valid values	Format	Description
			1 = Post-trade deferral		Value 1: Level 4.1 - Publication Mode / Post-Trade Deferral Reason MMT model (see also TradePublishIndicator [1390] + TrdRegPublicationReason [2670]) Maybe present if MDEntryType is 2
→→ 2670	TrdRegPublicationReason	N	6 = Non-Immediate Publication: Deferral for "Large in Scale" "LRGS" 7 = Non-Immediate Publication: Deferral for "Illiquid Instrument" (RTS 2 only) "ILQD" 8 = Non-Immediate Publication: Deferral for "Size Specific" (RTS 2 only) "SIZE"	Int	Values 6, 7 and 8: Level 4.1 - Publication Mode / Post-Trade Deferral Reason MMT model (related to TradePublishIndicator [1390] = 2 and TrdRegPublicationType [2669] = 1) Maybe present if MDEntryType is 2
	End <TrdRegPublicationGrp>				
→ 1188*	Volatility	N		float	Maybe present if MDEntryType = 6 or M
→ 381*	GrossTradeAmt	N		Amt	Effective trade amount. Maybe present when MDEntryType is 2 or B
→ 880*	TrdMatchID	N		String	Trade registration number. Identifier of partial fill or filled order, assigned by central system. Maybe present when MDEntryType = 2
	Start <TrdRegTimestamps>				Maybe present when MDEntryType = 2
→ 768*	NoTrdRegTimestamps	N		NumInGroup	

Tag	Name	Req	Valid values	Format	Description
→→ 769*	TrdRegTimestamp	N		UTCTimestamp	• When TrdRegTimestampType [770] = 1, it contains the trade execution date and time • When TrdRegTimestampType [770] = 11, it contains the date and time publicly reported of the trade
→→ 770*	TrdRegTimestampType	N	1 = Execution time 11 = Publicly reported	Int	
	End < TrdRegTimestamps >				
	Standard Trailer	Y			

7 RFQ and Indication of Interest

7.1 Introduction

The RFQ functionality allows HF MEFFGate Gate clients to receive information about the RFQ entered to the central systems of MEFF

A client only receives information on the RFQ for those contracts on which it has requested price information (Bid or Offer) in the Market Data Request message

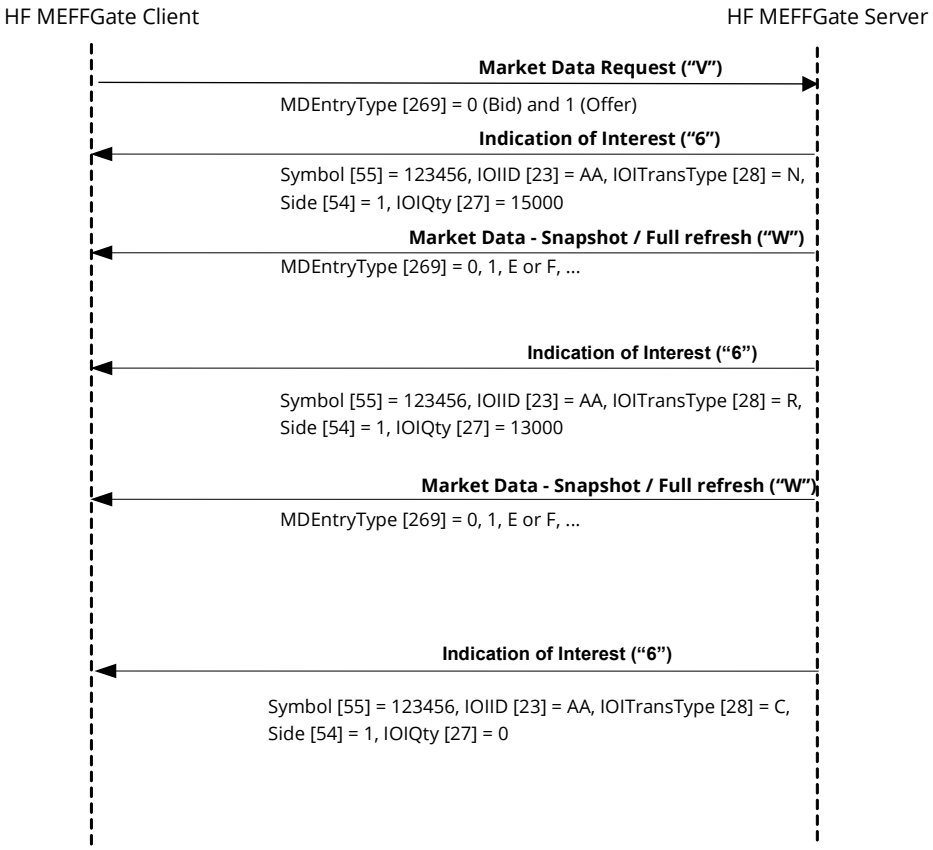
On the other hand, there is the possibility of making an Indication of Interest to the market prior to the introduction of orders in the opposite direction, with the intention of matching a previously agreed operation. This operation will be carried out through the Indication of Interest message.

7.2 List of messages

Message	Description
Indication of Interest (Msg Type = 6)	Message sent by HF MEFFGate to inform about different RFQ in a security or the Indications of Interest to the market
Market Data Snapshot Full Refresh (Msg Type = W)	Message sent by HF MEFFGate to inform about the RFQ prices in a security

7.3 Message flow

Reception of RFQ / Indication of Interest to the market



7.4 Annotations and adaptations of FIX 5.0

- The tag TradingSessionID [336] has been added to message Indication of Interest

7.5 Definition of messages

7.5.1 Indication of Interest (Msg Type = 6)

Message sent by HF MEFFGate to notify an indication of interest on a specific contract.

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = 6		
1180	ApplID	N		String	Used in conjunction with ApplSeqNum [1181] to indicate, in subsequent connections, the point from which to receive information
1181	ApplSeqNum	N		SeqNum	Used in conjunction with ApplID [1180] to indicate, in subsequent connections, the point from which to receive information
23	IOIID	Y		String	If the message comes from an RFQ, it will contain the RFQ identifier message If the message comes from an Indication of Interest, it will contain the Identifier of the subscription made by the user
28	IOITransType	Y	N = New C = Cancel R = Replace	Char	
	Start <Instrument>				
55	Symbol	Y	Contract code	String(22)	Contract code
454	NoSecurityAltID	N		NumInGroup	
→ 455	SecurityAltID	N		String	
→ 456	SecurityAltIDSource	N	4 = ISIN number	String	When SecurityAltIDSource [456] = 4, it contains the ISIN code for the contract
	End <Instrument>				
54	Side	Y	1 = Buy 2 = Sell 7 = Undisclosed	Char	
27	IOIQty	Y		String	RFQ volume requested
44	Price	N		Price	RFQ price requested
25	IOIQltyInd	N	H = High (RFQ requested) M = Medium (Order requested)	Char	Request Type Value "H" indicates RFQ has been requested through new trading modes 115, 116, 117 or 118, for responses addressed to the petitioner.

Tag	Name	Req	Valid values	Format	Description
					Value "M" indicates RFQ is asking for price quotations in the order book, addressed to all market participants.
60	TransactTime	N		UTCTimeStamp	Event time
336*	TradingSessionID	N	100 = IBEX futures hours / FX 105 = Normal hours 107 = Bono hours 115 = RFQ (IBEX futures hours) 116 = RFQ (normal hours) 117 = RFQ (Bono hours) 118 = xRolling on Stocks	String	Trading mode
	Standard Trailer	Y			

8 Communication of Events

8.1 Introduction

The News message is used to receive information from the Market Supervisor.

The information received has a free text format.

8.2 List of messages

Message	Description
News (Msg Type = B)	Used to receive text messages from the market supervisor

8.3 Message flow

Message reception

8.4 Annotations and adaptations of FIX 5.0

No annotations or adaptations have been made to the messages in this chapter

8.5 Definition of messages

8.5.1 News (Msg Type = B)

Tag	Name	Req	Valid values	Format	Description
	Standard Header	Y	MsgType = B		
1180	ApplID	N		String	Used in conjunction with ApplSeqNum [1181] to indicate, in subsequent connections, the point from which to receive information
1181	ApplSeqNum	N		SeqNum	Used in conjunction with ApplID [1180] to indicate, in subsequent connections, the point from which to receive information
42	OrigTime	N		UTCTimeStamp	Event time
61	Urgency	N	0 = Normal 1 = Flash 2 = Background	Char	The default value is 0
148	Headline	Y		String	Message header. Ignored by HF MEFFGate
33	LinesOfText	Y	1	NumInGroup	Number of lines of text. Only one line allowed
→58	Text	Y		String(78)	One line of text
	Standard Trailer	Y			

User Fields

The following table shows the user fields that are found in the messages of this manual

Tag	Name	Format	Description
21500	MoreSubscriptionsFollowing	Boolean	Allows to group market information subscription requests. For more information see “3.6 - Synchronisation at application level”
21501	LocalMktTimestamp	String	Indicates, for all tags in which a timestamp is included, the timestamp format: Y – HF MEFFGate will send the local market time (all messages up to microseconds) N – HF MEFFGate will send the the time in UTC format according to the FIX standard (all messages up to microseconds) For more information see 4.5
21505	BusinessSessionDate	LocalMktDate	Current business session date.
21507	RetailClFlag	Boolean	Indicates if any order that make up the price has the 'retail client indicator' active

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