

FIX Password Specification

Please contact Currenex sales representatives and help desk personnel for more information on this documentation.

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1 Currenex FIX Service Password

The Currenex FIX service requires users connecting via the FIX protocol to present a password as part of the Logon (35=A) message. To successfully connect, a user needs to set the password field, tag 554, a Currenex customized tag, to the valid password associated with the id specified in tag 49.

A Logon message containing an invalid password shall be rejected. The Currenex response to a valid Logon message will not contain tag 554. Refer to the below tables for sample successful Logon messages exchanged between a client and Currenex.

```
< Logon (8=FIX.4.2
9=85
35=A
34=1
49=<logon_id>
52=20070807-19:57:55.703
56=CNX
98=0
108=10
141=Y
554=<password>
10=202)
```

Table 1: Sample Client Logon (35=A) Message

```
> Logon (8=FIX.4.2
9=72
35=A
49=CNX
56=<logon_id>
34=1
52=20070807-19:57:48.717
108=10
141=Y
98=0
10=123)
```

Table 2: Sample Currenex Logon (35=A) Response

1.1 FIX Session Password Rules and Support

An expired password must be reset before any application messages, e.g., market data requests, new orders entry, etc., will be processed. Upon successful Logon, if a password needs to be reset, a TradingSessionStatus (35=h) message will be returned with tag 340=1 and tag 58 set to 'Password reset is required.' Until the password is reset, all further application messages will be rejected by the Currenex FIX gateway.

An account is locked after five (5) invalid password logon attempts. A locked account must be unlocked by the Currenex support desk before a user can logon successfully again.

As long as an account is not locked, its password can be reset by the user at any time by sending the appropriate [UserRequest](#) (35=BE) message.

1.2 Message Flow Diagrams

This section shows sample message workflow for invalid, valid, and valid but expired password logon attempts.

1.2.1 Logon with Incorrect Password



Figure 1: Logon with Incorrect Password

1.2.2 Logon with Valid Password

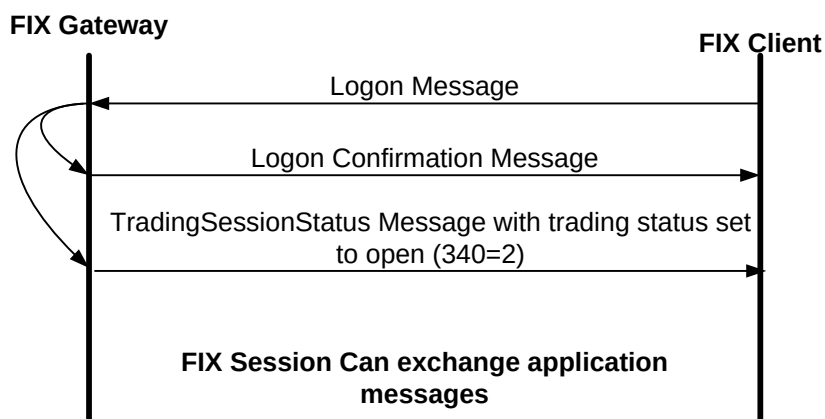


Figure 2: Logon with Valid Password

1.2.3 Logon Using an Expired Password Followed by a Password Reset

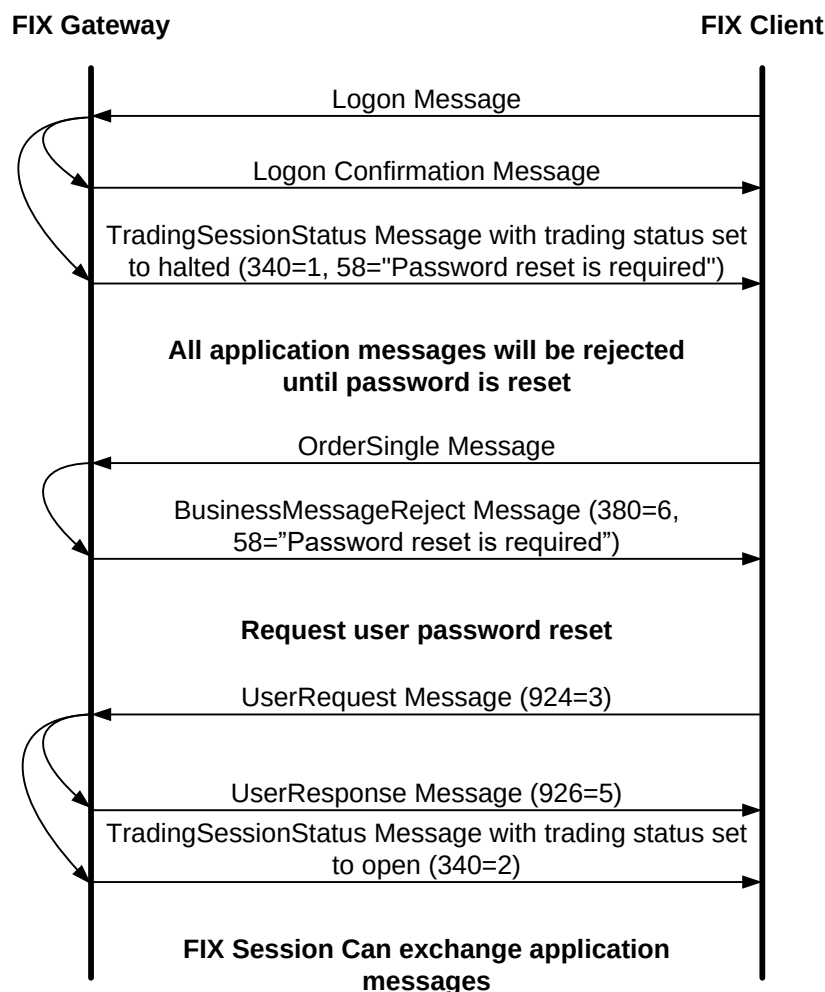


Figure 3: Logon Using Expired Password Followed by a Password Reset

1.3 FIX Messages – Password Reset

1.3.1 UserRequest

Tag	Field Name	Required Tag	Comments
	Standard Header	Y	MsgType tag 35 = BE
923	UserRequestID	Y	Unique identifier for User request
924	UserRequestType	Y	3 = ChangePasswordForUser, only valid value
553	Username	Y	The SenderComp ID of the password to be changed
554	Password	Y	Current Password or pass phrase
925	NewPassword	Y	New Password or pass phrase
	Standard Trailer	Y	

1.3.2 UserResponse

Tag	Field Name	Required Tag	Comments
	<i>Standard Header</i>	Y	MsgType tag 35 = BF
923	UserRequestID	Y	Unique identifier for User request
553	Username	Y	The SenderComp ID of the password to be changed
926	UserStatus	Y	Indicates the status of the user. Valid values are 3 = User not recognized 5 = UserPasswordChanged 6 = Other
927	UserStatusText	N	A text description associated with a user status
	<i>Standard Trailer</i>	Y	

2 QuickFIX Users

The following changes are QuickFIX specific.

2.1 Logon Code for Password

Clients that use QuickFIX as their FIX engine need to modify their FIX code so that the password is returned as part of the logon message. Refer to the sample code in the below table.

```
public void toAdmin(quickfix.Message message, SessionID
sessionID) {
    MsgType msgType = new MsgType();
    /* If Logon to CX, then set the password */
    if(message.getHeader().getField(msgType).valueEquals("A"))
    {
        message.setString(Password.FIELD, <ClientPassword>);
    }
}
```

Table 3: Sample QuickFIX Logon Code

<ClientPassword> - Password given to client or reset by client

2.2 Additional Required Changes

QuickFIX users need to

1. add the password to the Logon message spec by modifying the file quickfixj/etc/FIX42.xml

In the FIX42.xml file, search for "Logon" and add Password. It should look like the below

```
<message name="Logon" msgtype="A" msgcat="admin">
  <field name="EncryptMethod" required="Y" />
  <field name="HeartBtInt" required="Y" />
  <field name="RawDataLength" required="N" />
  <field name="RawData" required="N" />
  <field name="ResetSeqNumFlag" required="N" />
  <field name="MaxMessageSize" required="N" />
  <group name="NoMsgTypes" required="N">
    <field name="RefMsgType" required="N" />
    <field name="MsgDirection" required="N" />
  </group>
  <field name="Password" required="N"/>
</message>
```

Table 4: Additional Required QuickFIX Changes

2. Change the QuickFIX field specification to include tag 554.

Add the following to the QuickFIX Field specification:

```
<field number="554" name="Password" type="STRING" />
```

Revision History

Revision Number	Revision Date	Page Number	Update
1	21 June 2021	2	Section 1.1 change to five incorrect logon attempts.
2	28 February 2023	1	Updated Support Contact #