

# Session Layer - Message Sequence Numbers

This page describes the message sequence number protocol that must be followed between the client system and CME Globex.

FIX protocol requires separate sequence numbers for incoming and outgoing messages between the client system and CME Globex. This ensures that all messages to and from CME Globex are in the correct order and recoverable.

To guarantee message delivery, both the client and CME Globex must maintain the inbound and outbound sequence numbers. The client's responsibility for maintaining the inbound and outbound sequence numbers includes:

- Resetting the inbound and outbound sequence numbers to "1" prior to the Beginning of the Week Logon.
- Incrementing the inbound sequence number by one for each incoming message.
- Incrementing the outbound sequence number by one for each outgoing message.
- Issuing a [Resend Request](#) when the client detects a sequence gap.
- Resending any missed or malformed messages when CME Globex detects a sequence gap and issues a Resend Request.
- Maintaining sequence numbers between multiple FIX connections (a FIX connection occurs each time a client logs in).
- If the client uses fault tolerance, the client must maintain sequence numbers among the primary and backup processes during a failover scenario.

CME Globex preserves all inbound and outbound sequence numbers for recovering missed messages during a logon or failover scenario.

If the client's local architecture uses a single-server process that maintains multiple FIX sessions with the CME Globex platform and supports multiple applications, the client software should allow a session to reset and/or recover sequence numbers. This should not affect other actively trading connections on the server or the server process itself.