

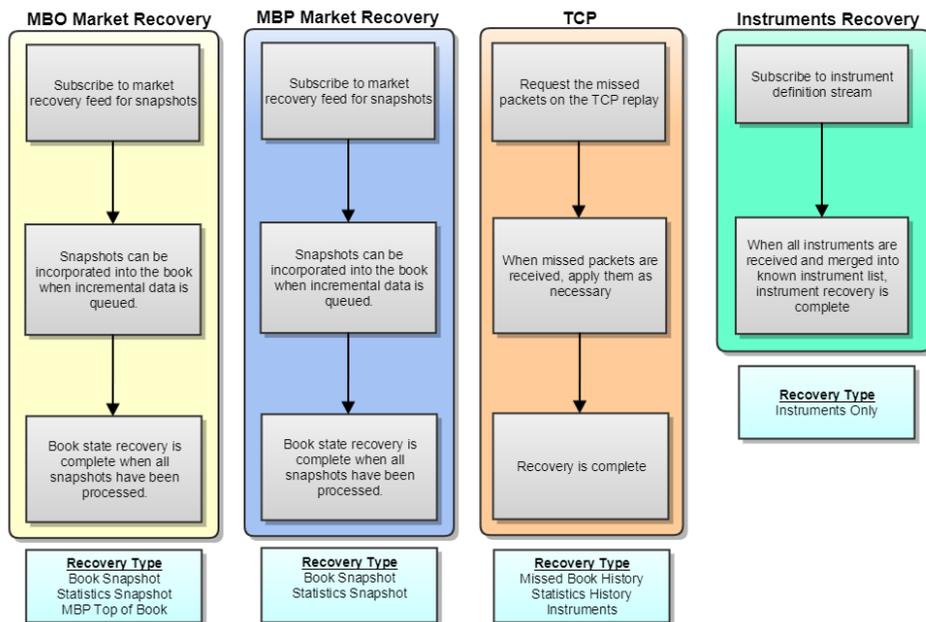
MDP 3.0 - Recovery Services

UDP Feed A and UDP Feed B are used to disseminate CME Group incremental market data. All FIX message types are sent through UDP Feed A and UDP Feed B applicable Market Data Groups (MBO updates, MBP book updates, statistics, quotes, instrument definitions, trades, instrument / instrument group, CME Globex status). Please note that a single message packet can contain multiple updates for multiple instruments. In some instances, a market data packet may be missed from UDP Feed A but will be received from UDP Feed B.

All book updates in the latest Market Data Incremental Refresh message must be processed before the order book can be considered valid.

The following services are offered by CME Group to allow recovery of missed data or synchronize client systems to the latest state:

- [MDP 3.0 Market Recovery](#) - A dedicated Snapshot loop for MBP and MBO to recover most recent market state, all MBO books, book levels, and statistics per instrument per channel.
- [TCP Recovery](#) - Establish TCP connection to recover all missed packets.
- [Instrument Recovery](#) - Instrument loop to recover most recent set of instruments.



In some instances, packets may be missed on both feeds, requiring a recovery process to take place. Packet loss is detected using the message packet sequence numbers. The packet sequence number is incremental; therefore, if a gap is detected between packets, this indicates a packet has been missed. In such a case, it should be assumed that all books maintained in the client system may no longer have the correct, latest state maintained by CME Group. Client systems must resynchronize all books to the latest state maintained by CME Group, and determine whether any new instrument definitions were published. During this synchronization process, all books are initially assumed to be in an incorrect state and are recovered during the synchronization process.

i CME Group strongly recommends that client systems process both the A and B Incremental UDP feeds. UDP Feed A and UDP Feed B provide the first level of protection against missed market data messages.