

# EBS Market – Latency Floor Description

February 2014

## What is Latency Floor?

Latency Floor is an enhancement to the EBS matching process aimed at ensuring that speed as a stand-alone strategy is not a pre-requisite for success on the EBS Market platform. By adding a randomised message batching window ahead of orders being processed by the matching engine, EBS is able to prevent low single digit millisecond differences in hardware, communication path, etc. from being a meaningful advantage between counterparties.

## Latency Floor in Detail

As mentioned above, the Latency Floor enhancement introduces a batching window (a randomized EBS configurable length (i.e. 1ms, 2ms or 3ms)) for a pair or group of pairs (a 'queue set') before they enter the arbitrator. The length of each batching window is randomized (within an EBS defined range, i.e. 1ms to 3ms).

The first message (bid, offer, buy, sell, cancel) in a pair will initiate a new batching window and the first message from each institution arriving in the batch will randomly be assigned to a unique (empty) row within the queue set for that pair, with all messages from the same institution in a region (i.e. from the same virtual floor code (VFC)) being assigned to the same row. It is also important to note that each currency pair is assigned to exactly one queue set which may include other pairs (i.e. EURUSD is in its own queue set).

Once the batching window has closed, the messages are then processed and sent to the arbitrator in a "round-robin" fashion, 1st message from the lowest numbered (occupied) row, 1st message from the next lowest numbered (occupied) row, and so on, until all the rows have had their first messages processed. Then the 2nd message from each row is processed in the same round-robin manner (lowest occupied row to highest occupied row), and so on, until all the messages from that batching window have been processed and sent to the order book. It is important to note that the current order book placement priority (price, region, time) remains valid, what is changed by the latency floor is simply the order in which messages are processed and therefore enter the order book.

## *Queue Sets*

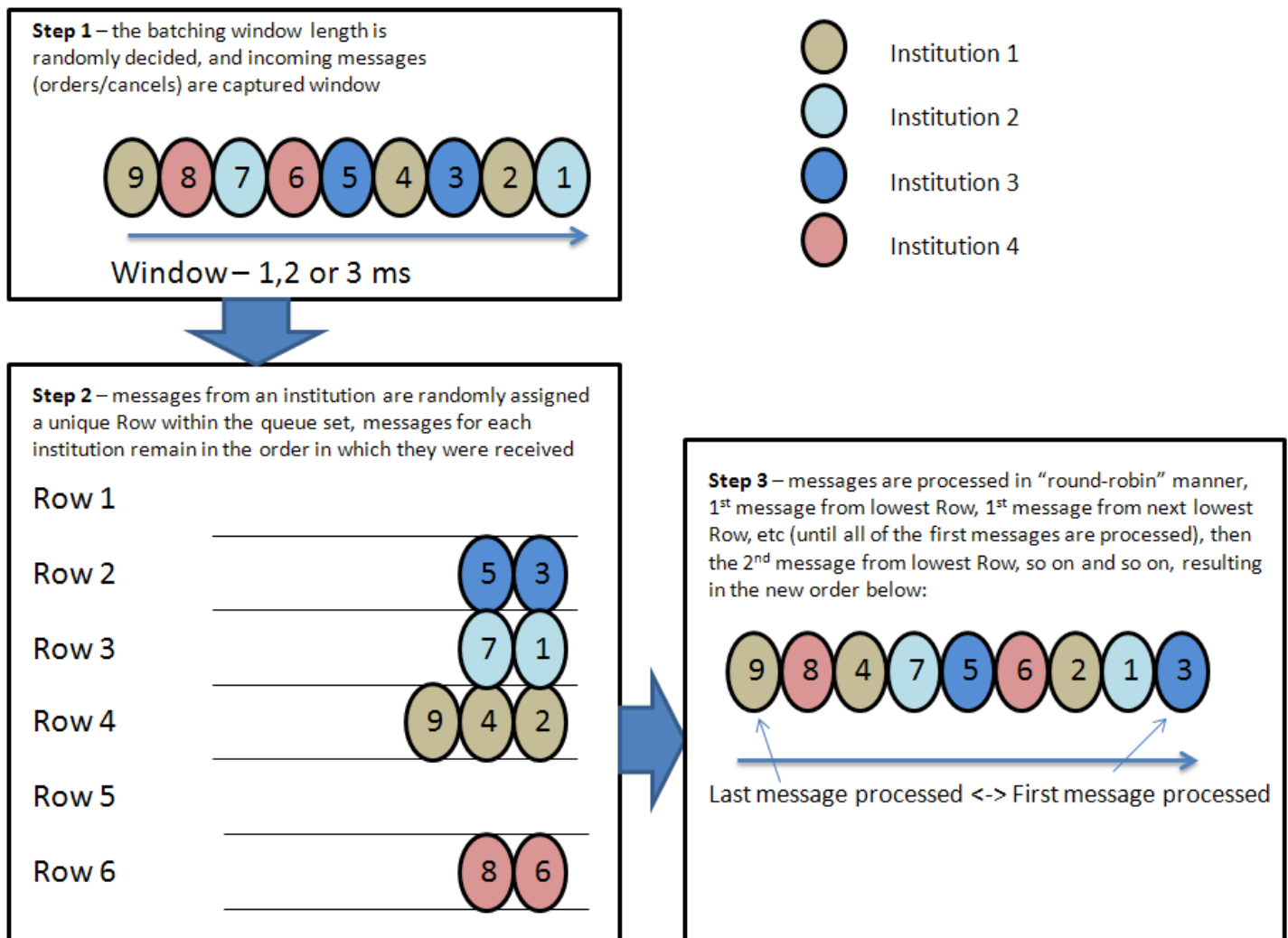
Queue Sets	Currency Pairs	Batching Windows	Deployment Date
1	EURJPY, EURCHF, AUDUSD, EURGBP	1, 2 or 3 ms	3 February
2	GBPUSD, USDCAD, USDCHF	1, 2 or 3 ms	3 February
3	USDRUB	1, 2 or 3 ms	3 February
4	USDJPY	1, 2 or 3 ms	17 February
5	EURUSD	1, 2 or 3 ms	3 March

If currencies share a queue set, messages received in those currencies from the same VFC will be placed in the same row.

## The order of messages in a row

Messages for a given queue set received from the same VFC will be put into the same row in the same order in which they were received and will also be processed in that order as well. There is no randomisation of messages *within* a row. All messages received from the same VFC are processed in the order in which they were received (FIFO).

## Latency Floor Step by Step



If you have any further questions, please contact EBS Customer Support.