

TimeStamps | new version

The product is designed to provide HFT traders with data on order routes and timestamps measured at different points of exchange infrastructure (co-location, trading engine)

Customer gets additional data on all orders received from the colocation zone:

- timestamp at the colocation zone (*see page 3*)
- gateway IP address through which the order passed
- rejected orders by trading system

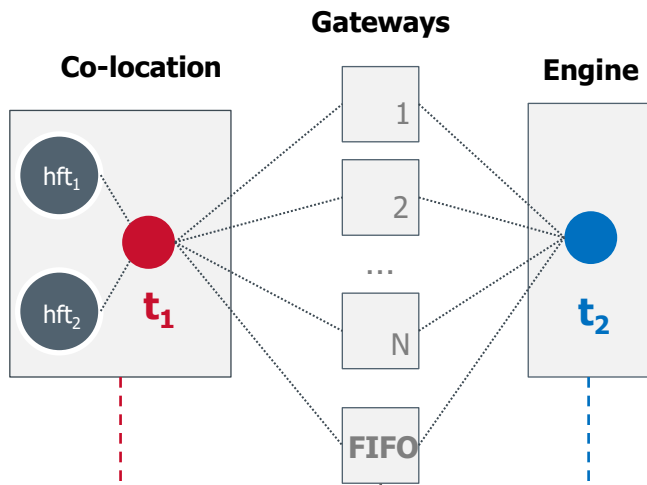
The product is anonymous and identical for all customers. Available for the FX and Stock markets.

Changes:

1. Contains all orders. Absolute value of timestamps in colocation zone are given (COLOTIME)
2. Contains rejected orders by trading system
- 3. Orders via FIFO MFIX scheme added**

The product is distributed on the daily basis at **10:00 A.M.** MSK with the data for the previous trading day.
Distribution via **ftp**

~~\$5.000~~ **\$2500** monthly subscription fee for FIFO MFIX Trade users in 2020



| | |
|----------|--|
| TIME | Engine time as formatted string HHMMSSXXXXYY (published in FIX/FAST) t_2 |
| | HH – hours, MM – minutes, SS – seconds |
| | XXX – milliseconds, YYY – microseconds |
| TICKER | Instrument ID |
| ACTION | 1 – order submission, 2 – trade, 3 – order cancellation |
| ORDERNO | Order ID |
| VOLUME | Volume in number of contracts |
| DIR | Order direction: – BUY / SELL |
| PRICE | Order price |
| TRADENO | Trade id |
| DSTIP | Gateway IP address |
| COLOTIME | Colocation time as formatted string HHMMSSXXXXYY.NNN t_1 |
| | HH – hours, MM – minutes, SS – seconds |
| | XXX – milliseconds, YYY – microseconds, NNN – nanoseconds |

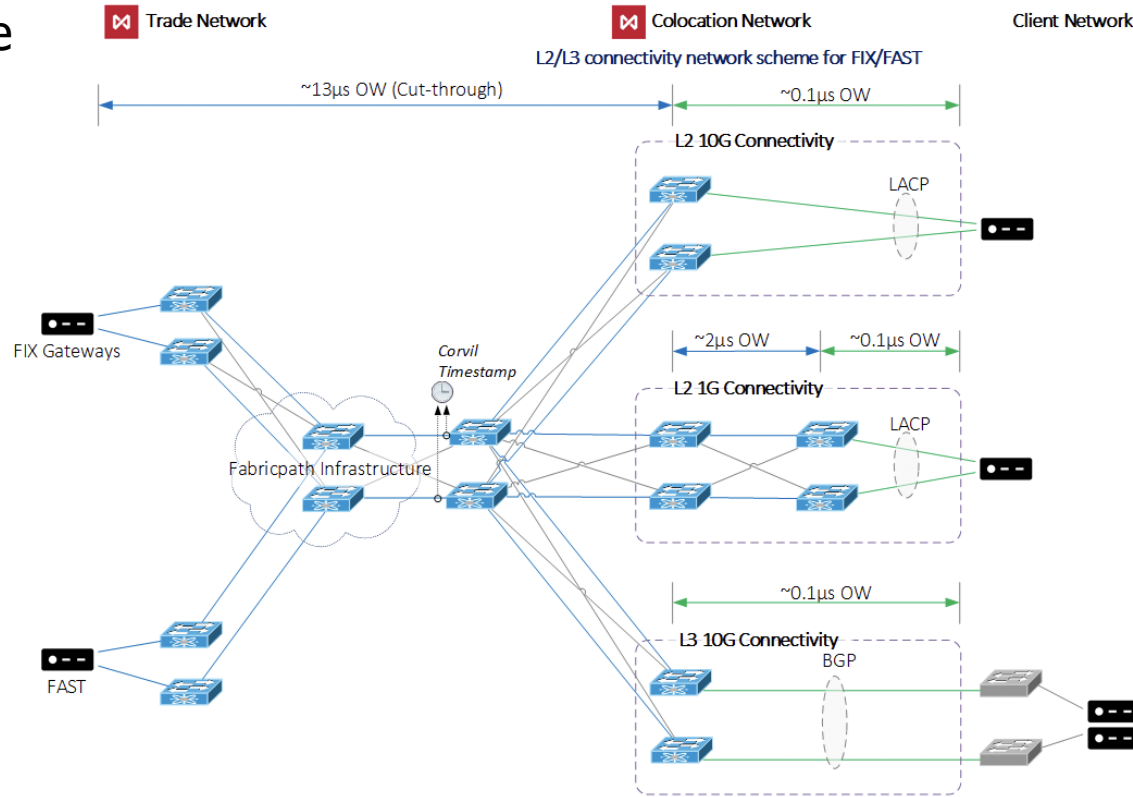
TimeStamps. Sample data:

| TIME | TICKER | ACTION | ORDERNO | VOLUME | DIR | PRICE | TRADENO | DSTIP | COLOTIME |
|--------------|--------------|--------|-------------|--------|-----|---------|---------|---------------|------------------|
| 100000023008 | USD000UTSTOM | 1 | 20075519160 | 200000 | S | 69.5625 | | | |
| 100000023704 | USD000000TOD | 1 | 20075519161 | 50000 | S | 69.545 | | 91.203.252.29 | 100000023518.251 |
| 100000024338 | USD000UTSTOM | 1 | 20075519162 | 200000 | S | 69.5725 | | | |

- DSTIP, COLOTIME values for lines with ACTION = 2 (trades) are empty
- DSTIP and COLOTIME values have orders coming from DataSpace colocation zone **only**

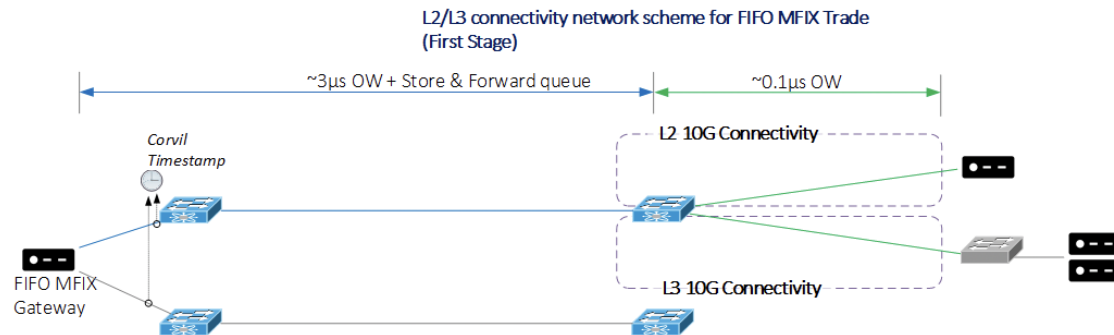
Where TimeStamps are taken

Network infrastructure



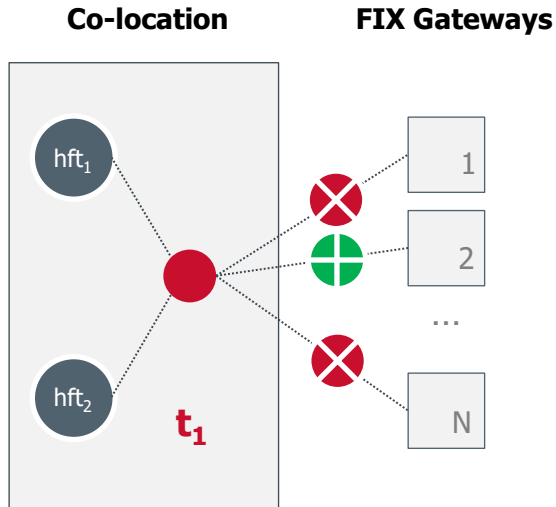
MFIX and FAST

FIFO MFIX Trade



Rejected orders

Additional information on rejected orders by trading engine. Cover cases when two or more orders send consistently by a trader to remove or cancel active order. First order executed and the rest are **rejected**



| ORDERID | TYPE | DSTIP | COLOTIME |
|-------------|------|---------------|------------------|
| 20020620851 | C | 91.203.252.67 | 100556538934.123 |
| 20020620851 | R | 91.203.252.26 | 100726863645.456 |
| 20020620851 | R | 91.203.252.29 | 100726863645.567 |

ORDERID Order ID

TYPE R – order replace
C – order cancel

DSTIP Gateway IP

COLOTIME HHMMSSYYZZZ.NNN

HH – hours
MM – minutes
SS – seconds
YYY – milliseconds,
ZZZ – microseconds
NNN - nanoseconds