



Open Day 2018 – Deutsche Börse IT conference

Trading roadmap

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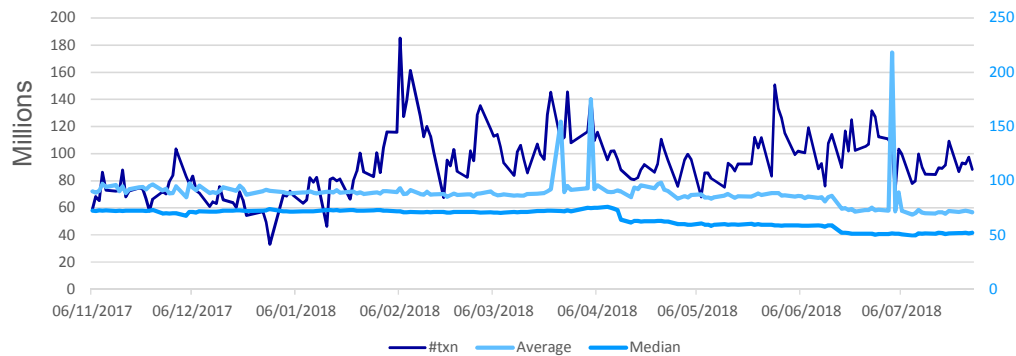


T7® Roadmap 2020: 8 years of T7 Releases – a short history and outlook

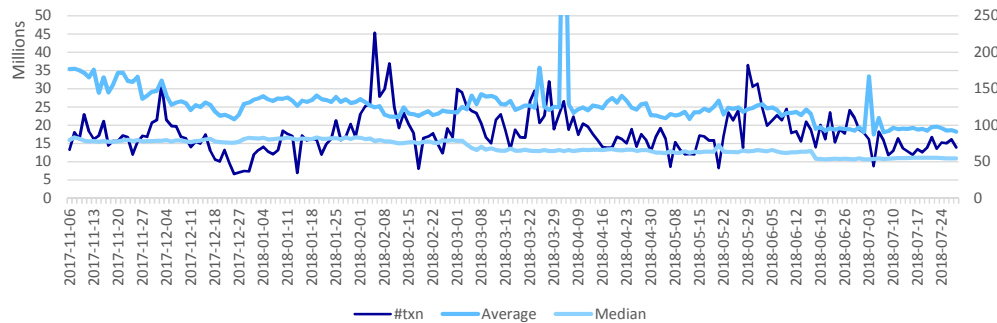
Deutsche Börse Group has launched T7 in 2012 and has stepwise improved and extended the coverage of the platform:

- T7 1.0 (December 2012): Eurex on-book trading
- T7 1.1 (June 2013): Performance tuning
- T7 2.0 (December 2013): EEX on-book trading and new EOBI (order by order) interface
- T7 2.1 (May 2014): Eurex new asset class support and performance tuning
- T7 2.5 (November 2014): Eurex and EEX market model extensions and performance tuning
- T7 3.0 (November 2015): Eurex market model extensions
- T7 4.0 (November 2016): Eurex off-book trading (T7 Entry Service or TES)
- T7 5.0 (June 2017): Cash equities and ETFs / ETCs / ETNs on-book trading; cash partner exchanges
- T7 6.0 (December 2017): MiFID II, market model extensions and Eurex Enlight; PS gateways
- T7 6.1 (June 2017): Smaller market model and Eurex Enlight extensions
- T7 7.0 (December 2018): Cash off-book trading, bonds and warrants support (incl. continuous auction for market maker), Eurex market model extensions
- T7 7.1 (May 2019): Remaining partner exchanges, market model extensions
- T7 8.0 (November 2019): Specialist market model as basis for Börse Frankfurt migration

Volume and average / median RTT of T7 cash transactions (in μ s)



Volume and daily average roundtrip of T7 futures transactions (in μ s)



T7[®] latency roadmap

- In Q1/2018, PS-gateways have been introduced for Eurex and Xetra reducing latency for HF-sessions significantly.
- On 18 June 2018, T7 Release 6.1 has been launched where the gateway processing has been further optimised.
- Since November 2017, daily average latency for cash transactions has been reduced by 25% and for futures transactions by 50% (due to T7 6.0, 6.1 and PS-GW launch). For PS-GW transactions daily average GW RTT are now approximately 60 μ sec (cash) and 85 μ sec (futures) respectively.
- Since 1 July 2018, Eurex and Xetra offer a High-Precision-Time file service (T+1) containing a network inbound time-stamp for all aggressive Co-location 2.0 orders.

Next steps:

1. December 2018 (T7 7.0): the GW outbound processing will be optimised to speed up order / quote responses. Note that this will not change the fact that order-by-order market data is faster than order / quote responses.
2. February 2019: Order-by-order market data will be offered for all Eurex products, including options.

T7[®] Release 7.0 (3 December 2018): scope

Deutsche Börse Group will introduce T7 7.0 on 3 December 2018 for Eurex and Xetra as well as partner exchanges.

The major scope items of the release are:

- Eurex Trading Hours Extension: Eurex plans to extend the trading hours of its core futures products from 10 December 2018.
- Eurex Improve: a new client flow facilitation service enabling the execution of customer flow at best prices in the order book of Eurex markets
- Eurex Enhanced Risk Functionality and Protection: new pre-trade risk check based on traded quantities plus incoming size (on- and off-book)
- Eurex Passive Liquidity Protection: protection of passive liquidity in options (can be activated on product level by Eurex; currently scheduled for Q2/2019)
- Eurex Equity and Basket Total Return Futures: enable listing of Equity Total Return Futures and Basket Functionality for Equity Total Return Futures (launch in 2019 with T7 7.1)
- Cash TES Entry: functionally will be provided for Xetra and partner exchanges, hence consolidating all cash trading activities (on-book / off-book) in T7.
- Cash: "Intraday-Only Auction" will be supported as order restriction.
- Cash Warrants and Bonds (including continuous auction for market make): bond and warrant-specific data will be available in all interfaces (ETI, FIX, Public Reference data, GUI, reports). Launch for Vienna is currently scheduled for January 2019 and FWB with T7 8.0.
- EEX TES: move of off-book transactions from Eurex Classic to T7 is currently scheduled for early Q2/2019.
- All markets: improvements of mass quote cancellations scope
- All markets: removal of connection gateways: connection GW functionality will be removed in T7 7.0 and participants will be able to choose an LF GW or connect to the respective PS GW (depending on session type). Participants using version 6.1 will still need to connect to the connection gateway.

T7® Release 7.0 (3 December 2018): logistics

Deutsche Börse Group will introduce T7 7.0 on 3 December 2017 for Eurex and Xetra as well as partner exchanges.

Note that T7 7.0 will be ...

- backwards compatible for the ETI interface to version 6.1.
- not backwards compatible for the FIX interface.
- not backwards compatible for market and reference data interfaces (EOBI, EMDI, MDI, RDI, RDF). Several T7 reports will change and there will be a new version of the report manual for all T7 reports.

The following launch schedule for T7 7.0 is currently foreseen:

- Cloud simulation for T7 7.0 is available since 31 August 2018.
- Regular simulation for T7 7.0 is available since 24 September 2018; regular T7-FX 7.0 simulation will also be available from 24 September 2018.
- Launch for all markets (incl. T7 -FX) will be on 3 December 2018.
- Eurex trading hour extension goes live from 10 December 2018 on.

Outlook: activities 2019

T7[®] Release 7.1 (27 May 2019) and T7 Release 8.0 (18 November 2019)

- Q1/2019: Eurex plans to offer EOBI market data for all products (including all options).
- Q2/2019: EEX plans to offer decaying futures functionality for TES trades in energy products and move TES trading from Eurex Classic to T7.
- Q1-Q3/2019: Migration of all remaining partner exchanges that currently trade on the Xetra system to T7

The launch of the next T7 Releases are scheduled for May 2019 (T7 7.1) and November 2019 (T7 8.0), respectively.

It is expected that the changes in the T7 Release 7.1 will have little impact on members though changes to the member interfaces are possible. Currently discussed scope items include: enhancements to Eurex EnLight, Fixed Income Total return Futures, technical improvements of the T7 platform.

Currently, the following features are scope candidates for T7 Release 8.0:

- EnLight for cash markets (potentially already scope for T7 7.1)
- Other functional and technical enhancements of the T7 trading platform, including the support of new asset classes for derivatives
- Implementation of the specialist market model for cash markets
- Migration of Börse Frankfurt and Börse Frankfurt Zertifikate AG to T7 is currently is foreseen with T7 8.0; we intend to use a new T7 instance.

Thank you for your attention

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