



XONTRO

System Connection

Financial Institutes

FIX Session Encryption

Registration Documents

Valid as of: 16.08.2023

Version 01.00

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FIX connection encryption within XONTRO

This information is directed towards all banks participating in the XONTRO system connection via the FIX protocol versions 4.2 and 4.4.

At present, BrainTrade, together with their system provider Deutsche Börse AG, is implementing mandatory system implementations with respect to a TLS¹ encrypted data transfer protocol through the XONTRO FIX system interface (FAGSE).

These adaptations are implemented in order to enhance the security of information transferred on the communication networks further, and to reduce the risk of unauthorized capture, data manipulation, or misuse of data.

As has already been announced in December 2022 in the “XONTRO Newsletter - Banks No. 107“, BrainTrade intends to test the TLS FIX session encryption, together with the first pilot banks, beginning the 3rd quarter of 2023. A mandatory simulation for all FIX participants will be offered between Q4 / 2023 and Q1 / 2024.

The migration will be scheduled to take place successively and within a mutual co-ordination.

The minimum duration of the simulation has been set to two weeks per member, after a connection test has successfully occurred.

The transition onto the production system will take place during four pre-defined Mondays; the first date – to be offered to a limited number of candidates – will be Monday, November 20th, 2023; the last transition date available will be March 25th, 2024.

The documentation necessary for a successful enrollment is attached to this newsletter.

Within the application procedure, the clients are kindly asked for the transmission of some additional technical (names of network connections und the attached FIX system users), as well as regulatory information (responsible trader). This is necessary in order to check important issues more quickly if any urgent system difficulties arise.

XONTRO uses QuickFIX engines within the simulation as well as within the production environments.

¹ Transport Layer Security (TLS)

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Time schedule

Registration deadline (for all FIX members)	29.09.2023
Member simulation A (for up to 10 FIX members)	02.10.2023 – 17.11.2023
<ul style="list-style-type: none"> ▪ Production start 1 (up to 5 FIX members) ▪ Production start 2 (up to 5 FIX members) 	20.11.2023 (Mon.) 18.12.2023 (Mon.)
Member simulation B	15.01.2024 – 16.02.2024
<ul style="list-style-type: none"> ▪ Production start 3 ▪ Production start 4 	19.02.2024 (Mon.) 25.03.2024 (Mon.)

General technical conditions

TLS certificate

All TLS encryption of the FAGSE FIX Gateway application will use the so-called „anonymous authentication“ method. This means that a certificate using the RSA encryption algorithm will only be produced at the stock exchange site; thus, the FIX participants will not need a certificate created by themselves.

Along with the connection setup (TLS handshake), the certificate will be transferred onto the FIX participant; it may be subject to an additional verification against the certification issuing authority by the FIX participant; this certification procedure will be optional.

At the FAGSE site, a certificate signed by the DigiCert certification agency will be used. The certificate will be renewed regularly (once each year). No further action at the FIX participant's site will be required along with the certificate exchange process.

The TLS version 1.2. will be supported.

Ports

In order for the TLS encryption modification to be supported, two new additional ports will be generated within the FIX gateway; these may be used for TLS connections exclusively.

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The two “old” ports without encryption will remain intact at the first stance; they will eventually be de-activated after the transition.

In order for the TLS encryption to be available, it will be necessary for the FIX members to move to one of the two new ports. This will have to be done in close co-operation with BrainTrade, as an additional configuration modification will become necessary within the FIX gateway. This move will occur during night time. After this step has been taken, an unencrypted connection via the old port will not be possible without any further ado.

targetCompID

Along with the change onto the new port, a new targetCompID (Tag 56) will have to be sent within the FIX message header.

Correspondingly, those FIX messages that are being sent from the FIX gateway onto the FIX participant, will bear this new CompID within the header field senderCompID (Tag 49).

Simulation – new parameters

used hitherto Port / TargetCompID		to be used with TLS Port / TargetCompID
17101 / FSRH01I7	➔	17103 / FSRH03I7
17102 / FSRH02I7	➔	17104 / FSRH04I7

Production – new parameters

used hitherto Port / TargetCompID		to be used with TLS Port / TargetCompID
15101 / FSRH01I5	➔	15103 / FSRH03I5
15102 / FSRH02I5	➔	15104 / FSRH04I5

TLS certificate verification procedure

In order for the certificate to be verified by the FIX participant, the appropriate root certificate issued by the DigiCert certification agency must be installed within the trust store. The identity of the necessary root certificate will be made public at a later point in time.

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FIX-Engine QuickFIX/J – Necessary adaptations

For those FIX participants who are using the FIX-Engine QuickFIX/J, in most cases only a configuration parameter modification will be necessary in order to activate the TLS encryption. The following parameters will be relevant:

Adaptation of the old parameters, as outlined above:

- SocketConnectPort=
- TargetCompID=

To be included as new in order to activate the TLS encryption:

- SocketUseSSL=Y
- EnabledProtocols=TLSv1.2

To be included as new in case the certificate is to be verified:

- SocketTrustStore=[your trust store path]
- SocketTrustStorePassword=[your trust store password]

Technical transition guideline (simulation & production)

- Fill in and transmit registration documents until September 29th, 2023
- BrainTrade will submit the new port numbers together with the appointed date agreements (connection test for simulation as well as for GoLive production); they will also modify the system configuration at the date agreed upon
- Simulation connection test performance (from Monday thru Friday during the simulation phase)
- Performance of a two-week member simulation phase at a minimum
- GoLive production connection test performance (at one of four available Monday dates)

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GoLive production

The production launch will take place at the GoLive date agreed bilaterally.

On this day, the participant has the option to launch a connect and a logon beginning from 05.00 a.m. The BrainTrade helpline (+49 69 589978 110) will be staffed at that time and will be able to acknowledge the successful login.

In case the connect and logon will not be successfully completed at that time, the participant will be given the option to instruct BrainTrade to perform a rollback immediately. This rollback will then be performed until 07.00 a.m. latest, and the participant will then be informed about this measure via telephone. Only after this step the participant will have the option to connect and to logon using their "old" configuration data again.

Hints for the certificate exchange procedure

The FAGSE certificates for simulation and production will be generated / updated for another 365 days each. The certificate update will only be done at the FAGSE server site; it will be transparent for the FIX participants.

The participants will be informed in advance as to when a certificate will be updated at the FAGSE server site.

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Compulsory simulation registration

Please send back via e-mail to:

Brain Trade
Gesellschaft für Börsensysteme mbH
Börsenplatz 4

60313 Frankfurt am Main

E-Mail: saki@xontro.de
Phone: +49 69 – 58 99 78 – 110
Fax: +49 69 – 211 – 60 80 52

Name of participant:

Postal address:

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Simulation participation:

- Our company will take part in the simulation by ourself
- Our company will be represented during the simulation by the following vendor
(please fill in vendor's name):

Technical contact person:

Division / function:

Phone extension:

E-Mail:

Functional contact person:

Division / function:

Phone extension:

E-Mail:

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Technical information

1. Please list the production-like z/OS- resp. Mainframe line names (ZLxxxxxx):

(Primary)

(Secondary)

2. Which FIX engine are you using?

3. Does your FIX engine support the TLS encryption (Version 1.2)?

Yes No

4. Will there be a TLS certificate verification by your company?

Yes No not yet decided

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Functional / regulatory information

Productive „Responsible Trader“

Name: _____

User-ID: _____

E-Mail: _____

„FIX System User ID“

User-ID: _____

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• Production start 2 (up to 5 FIX members)	18.12.2023 (Mon.)
Member simulation B	15.01.2024 – 16.02.2024
• Production start 3	19.02.2024 (Mon.)
• Production start 4	21.03.2024 (Mon.)

Our desired connection test date for simulation will be:

_____ . _____ . 202____

Our desired GoLive date for production will be:

_____ . _____ . 202____ (possible dates above)

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IMPORTANT notes:

- The migration will be mandatory for all XONTRO FIX participating banks.
- For the simulation environment, the timing schedules – and especially the evening batch run times – will be taken over from the productive environment.
- The daily simulation phase being supported by our staff begins at 09.00 a.m. and ends at 04.00 p.m. During the remaining times a “free-handed” simulation will be possible until 10.30 p.m.
- The minimum simulation length has been set to two weeks per participant, after the connection test has occurred successfully.
- The appointed due dates will become binding only after the written confirmation by BrainTrade.

Location and date Seal and signature

Further information regarding data privacy protection may be found under www.xontro.de