Agreement: BOL - DEC – 2023 No 2023/41-290

SOFTWARE LICENSE AND SERVICES AGREEMENT

Confidential Clauses:
4.4
The whole of Exhibit A (with the exception of the total amount)

THIS SOFTWARE LICENSE AND SERVICES AGREEMENT (hereinafter the "Agreement"), effective December 22, 2023 (the "Effective Date"), is made and entered into by and between EPAM DX, LLC., a Delaware corporation, having its principal place of business at 41 University Drive, Suite 202, Newtown, PA, 18940 ("Deltix"), and Bank of Lithuania, having its principal place of business at Gedimino pr. 6, LT-01103 Vilnius, Lithuania ("Customer").

WHEREAS, Deltix is a company engaged in the business of developing Software for advanced alpha generation and quantitative research; and

WHEREAS, Customer desires to obtain access to such Software, for its own internal business purposes; and

WHEREAS, Customer desires that Deltix provide Services to Customer, on the terms and conditions set forth below.

NOW THEREFORE, in consideration of the mutual promises contained herein, and other valuable and sufficient consideration, the receipt of which is hereby acknowledged, the parties agree as follows:

1.   DEFINITIONS.

The following definitions shall apply to the Agreement:

1.1   "Customer Data" shall mean any confidential data provided to Deltix by Customer or Customer's agents for the purposes of being processed, analyzed or otherwise utilized by the Software or the Services.

1.2   "Customer Information" shall mean:

(a)   Trading ideas and algorithms;
(b)   The results of financial simulation, benchmarks or other performance tests, run by Customer; and
(c)   Any other information, in whatever form, received by Deltix from Customer which is identified as being proprietary or confidential or which is not generally known or available to others.

1.3   "Deltix Information" shall mean:

    (a)   The Software;

    (b)   Training materials;

    (c)   The results of benchmarks or other performance tests, run by Deltix; and

    (d)   Any other information, in whatever form, received by Customer from Deltix which is identified as being proprietary or confidential or which is not generally known or available to others in the trade.

1.4   "Documentation" shall mean the user guides and manuals related to the use of the Software that are provided to Customer by Deltix, whether in printed or electronic form.

1.5   "Implementation Services" shall mean implementation support.

1.6   "Server" shall mean a physical or virtual server(s) deployed by the Hosting Partner in their data center and which hosts the Software.

1.7   "Hosting Partner" shall mean a person or entity, chosen by Deltix in its sole discretion, at whose facility the network, storage infrastructure and Server are located ("Hosting Services"). The Hosting Partner may be Deltix or a qualified third party.

1.8   "Intellectual Property Rights" shall mean any trade secrets, patents, copyrights, trademarks, know-how, moral rights and similar rights of any type under the laws of any governmental authority, domestic or foreign, including all applications and registrations relating to any of the foregoing.

1.9   "Order Supplement" shall mean Deltix's standard form for ordering Software and Services that is signed by Deltix and references this Agreement by number. An Order Supplement covering the initial Software and Services to be provided to Customer is attached hereto as Exhibit A.

1.10   "Software Services" shall mean development of new software functionality, enhancement of existing product functionality or customization of existing software functionality that is performed per Customer request.

1.11   "Services" shall mean Software Services, Technical Support, Implementation Services and Training, as the context indicates. "Enhanced Support" is a provision of Technical Support with enhanced response times as set forth in Exhibit B.

1.12   "Software" shall mean the computer software that is owned or licensed by Deltix and listed in a completed and signed Order Supplement, the related Documentation, and any Updates furnished by Deltix.

1.13   "Technical Support" shall mean the maintenance and support services described in Deltix's then-current Technical Support Policy, a current copy of which is attached hereto as Exhibit B. Technical Support shall include (a) the provision of

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"hotline" support via telephone and/or email and (b) the development and delivery of periodic Updates. "Enhanced Support" is a provision of Technical Support with enhanced response times as set forth in Exhibit B.

1.14   "Training" shall mean the educational services that Deltix may offer to its customers.

1.15   "Updates" shall mean any error corrections, enhancements, new releases or other modifications to the Software that Deltix makes generally available to its customers who have ordered Technical Support. New or additional modules developed by Deltix are not included with Updates and will be provided subject to the fees generally charged Deltix other customers for new modules.

2.   <u>LICENSE</u>.

2.1   Subject to the terms and conditions of this Agreement, Deltix hereby grants to Customer, for the term of this Agreement, a non-exclusive, non-transferable, non-sublicensable license to access the Software from the Hosting Partner and use the Software solely for the purpose of processing information related to investment management.

2.2   The Software shall not be used for any purpose other than as expressly authorized by this Agreement. In particular, but without limitation, Customer agrees that it will not:

a.   Provide access to the Software to any third party
b.   Make the Software available on any file sharing or application hosting service
c.   Attempt in any way to reverse engineer, reproduce or modify the Software or
d.   Develop a competing product or service based upon the Software.

2.3   Nothing in this Agreement shall be deemed to grant Customer, either directly or by implication, estoppel, or otherwise, any license or rights other than those expressly granted in Section 2.1.

2.4   By virtue of this Agreement, Customer acquires only the right to use the Software and does not acquire any other rights or ownership interests. All rights, title, and interest in the Software and any improvements thereto (including without limitation any improvements suggested by Customer or by Customer's usage of the Software) shall at all times remain the property of Deltix.

2.5   Any improvements to the Software suggested by Customer or by Customer's usage of the Software that Customer desires to restrict for Customer's internal usage only, must be explicitly defined in the Order Supplement and priced separately as Software Services.

3.   SERVICES.

      3.1   Deltix shall provide Customer with the Technical Support, if any, specified on the Order Supplement. Each term of Technical Support shall be for a period of one year from the date of execution of the relevant Order Supplement.

      3.2   Deltix shall provide Customer with the Software Services, if any, specified on the Order Supplement.

      3.3   Deltix shall provide Customer with the Implementation Services, if any, specified on the Order Supplement.

      3.4   Deltix shall provide Customer with the Training services, if any, specified on the Order Supplement.

      3.5   For the avoidance of doubt, Deltix is not responsible for any fees of any kind for market data or other data used in conjunction with the Software incurred directly or indirectly by Customer.

4.   FEES AND PAYMENT TERMS.

      4.1   Customer agrees to pay to Deltix all fees and other charges for the Software and Services as specified in the applicable Order Supplement (the "Fees").   All Fees payable hereunder shall be paid in United States Dollars and sent to the address set forth in Section 10.9 hereof.   Unless otherwise agreed in writing, Customer shall pay all Fees within 20 days of receipt of Deltix's invoice. All overdue payments shall bear interest at the rate of one and one-half percent (1.5%) per month or the maximum rate allowed by law, whichever is less.

      4.2 The client shall pay for the provided appropriate and high-quality Software and Services in the following manner:

4.2.1 the payment for software licences, including software support services (point 1 of the table of Annex A), server monitoring services (point 3 of the table of Annex A), connection of the servers of the Client in Chicago with the Client's selected broker in Chicago (point 4 of the table of Annex A), VPN connectivity services between servers of the Client in Vilnius (Žirmūnų g. 151) and servers of the Client in Chicago data centre (point 5 of the table of Annex A) shall be made within 20 days of the receipt of Deltix invoice. The invoice for each quarter shall be submitted for 3-month provision of services no later than the tenth day of the first month;

4.2.2 the payment for consulting services (point 2 of the table of Annex A) shall be made after the end of the calendar month within 20 days of the receipt of Deltix invoice.

      4.3   Customer shall be solely responsible for the payment of any and all taxes arising, or that may arise, out of Customer's use of the Software, including, but not limited to, any sales, use, access and/or business taxes, excluding taxes based on the income of Deltix.

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4.4 **Delay Charges**

A Service Non-Compliance will arise with the occurrence of one or more of the following:

- If software licenses (without the Specific Components described in Exhibit A) are not delivered to Customer within 49 days of the Effective Date

- Priority 1 Problem of seven (7) days or more from the notification of a problem; or

- Priority 2 Problem of fourteen (14) days or more from the notification of a problem

If there is a Service Non-Compliance, then Customer shall be penalized with Delay Charges of the percentages of the monthly Fees for Software licenses and Services (excluding Hosting Services), as shown in the table below, in the month during which the Service Non-Compliance period occurred. The Supplier shall deduct from the next invoice any Delay Charges due to Customer.

Non-Compliance	Number of Days after notification	Percentage Penalty – not including hosting costs
Non Delivery of Software Licenses not including Specific Components	1 – 10 days	10%
Non Delivery of Software Licenses not including Specific Components	11 – 20	20%
Non Delivery of Software Licenses not including Specific Components	21 – 30	30%
Non Delivery of Software Licenses not including Specific Components	31 – 40	40%
Non Delivery of Software Licenses not including Specific Components	41 – 50	50%
Priority 1 Problem	5 -10	10%
Priority 1 Problem	10 -15	20%
Priority 1 Problem	16 – 20	30%
Priority 1 Problem	21 – 25	40%
Priority 1 Problem	26 – 30	50%
Priority 1 Problem	30 +	100%
Priority 2 Problem	15 – 25	10%
Priority 2 Problem	26 – 60	20%

Priority 2 Problem	61 +	30%

5. USE & PROTECTION OF INFORMATION.

5.1   For the purposes of this Section 5.1, "Confidential Information" shall mean (i) the Customer Data, when received by Deltix or the Hosting Partner, (ii) the Customer Information and (iii) the Deltix Information, when received by Customer. The receiving party acknowledges that the Confidential Information constitutes a valuable asset of the other party. The receiving party shall hold the Confidential Information in strict confidence and shall utilize it only in accordance with the terms of this Agreement. Except as expressly permitted by this Agreement, the receiving party shall limit the use of, and access to, the Confidential Information to its employees or agents whose use of or access to the Confidential Information is necessary for such party's business and who have agreed to abide by the terms of this Agreement. The receiving party shall, by all appropriate means, prevent unauthorized disclosure, publication, display or use of any Confidential Information. The receiving party shall not remove any copyright, proprietary rights or confidentiality notice included in or affixed to any Confidential Information, and shall reproduce all such notices on any copies of Confidential Information which such party shall make. If either party inadvertently discloses Confidential Information, the disclosing party shall use best efforts to cure and shall immediately notify the non-disclosing party upon discovery of breach.   **If the Receiving Party is compelled by law to disclose Confidential Information of the Disclosing Party, it shall provide the Disclosing Party with prior notice of such compelled disclosure (to the extent legally permitted) and reasonable assistance, at the Disclosing Party's cost, if the Disclosing Party wishes to contest the disclosure.**

5.2   Customer shall provide to Deltix all Customer Data reasonably required by the Software or the Services. If such Customer Data is in the possession or control of a third party, Customer shall sign, execute, make and do all such deeds, documents, acts and things as may be reasonably required to cause such Customer Data to be provided to Deltix.

5.3   Customer shall not in any way disparage verbally, in writing, or electronically (including websites, blogs and bulletin boards) Deltix, its officers, directors, employees, agents, successors or assigns, Software or Services.

6. WARRANTIES AND DISCLAIMER.

6.1   Deltix does not represent or warrant that all non-critical errors in the Software and Documentation will be corrected. Business critical errors will be corrected as per the terms in Exhibit B. Deltix warrants to Customer that from the Effective Date of this Agreement, the Software will perform substantially in accordance with the applicable Documentation. As Deltix's sole obligation for any breach of the warranties contained in this Section 6.1, and as Customer's exclusive remedy, Deltix will use best efforts to

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promptly remedy any non-conformance of the Software with the warranty set forth herein.

6.2   Deltix warrants to Customer that all Services will be performed in a workmanlike manner. This warranty shall be valid for one-hundred and eighty (180) days from completion of service.

6.3   THE EXPRESS WARRANTIES SET FORTH IN THIS SECTION 6 ARE THE ONLY WARRANTIES MADE BY DELTIX WITH RESPECT TO THE SOFTWARE AND ANY SERVICES PROVIDED BY DELTIX, AND ARE IN LIEU OF, AND DELTIX HEREBY DISCLAIMS, ANY AND ALL OTHER WARRANTIES, CONDITIONS OR REPRESENTATIONS (WHETHER EXPRESS OR IMPLIED, ORAL OR WRITTEN), INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF TITLE, NON-INFRINGEMENT, INFORMATION, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE (WHETHER OR NOT DELTIX KNOWS OR HAS REASON TO KNOW OF SUCH PURPOSE), WHETHER ARISING BY LAW, CUSTOM, USAGE IN THE TRADE OR BY COURSE OF DEALING. DELTIX'S WARRANTY SHALL NOT BE ENLARGED, DIMINISHED OR AFFECTED BY DELTIX PROVIDING SERVICES IN CONNECTION WITH THE SOFTWARE.   DELTIX DOES NOT WARRANT THAT ACCESS TO THE SOFTWARE WILL BE UNINTERRUPTED OR ERROR FREE, FREE FROM POWER OUTAGES, SYSTEM FAILURES OR HARMFUL COMPONENTS, OR THAT THE CUSTOMER DATA WILL BE SECURE OR NOT OTHERWISE LOST OR DAMAGED. IN ADDITION, DELTIX EXPRESSLY DISCLAIMS ANY WARRANTIES TO ANY PERSON OTHER THAN CUSTOMER AND ITS AFFILIATES.

6.4   Any warranties applicable to third party software are provided as set forth by the provider(s) of such software.

7.   <u>INDEMNITY</u>.

7.1   Deltix shall defend or, at its option, settle, any claim, action or proceeding brought against Customer based upon a claim that the Software infringes a patent, copyright or trade secret, and shall indemnify Customer against all damages and costs finally awarded by a court of competent jurisdiction against Customer in any such action or proceeding. Deltix shall have no liability under this Section 7.1 unless Customer (a) promptly notifies Deltix in writing of the claim, (b) gives Deltix sole control of the defense of such claim and all negotiations for the compromise or settlement thereof and (c) provides Deltix with all reasonable cooperation, information and assistance in connection with the claim. If the Software or any part thereof becomes, or in Deltix's opinion is likely to become, the subject of a valid claim of infringement or the like, Deltix shall have the right, at its option and expense, either to obtain for Customer a license permitting the continued use of the Software or such part, to replace or modify it so that it becomes non-infringing, or to refund an amount equal to the depreciated license fee paid

by Customer for the Software (calculated on a straight line basis over a three-year life) and to terminate the license therefor. Deltix shall have no liability hereunder for any costs incurred or settlement entered into without its prior written consent. THE PROVISIONS OF THIS SECTION 7.1 STATE THE EXCLUSIVE LIABILITY OF DELTIX AND THE EXCLUSIVE REMEDY OF CUSTOMER WITH RESPECT TO ANY CLAIM OF INTELLECTUAL PROPERTY INFRINGEMENT BY THE SOFTWARE, ANY PART THEREOF OR THE USE THEREOF.

7.2   Deltix assumes no responsibility for the information processed by Customer using the Software and Customer agrees to indemnify, defend and hold harmless Deltix and its officers, directors, employees, agents, successors and assigns from and against any losses, liabilities, damages, penalties, actions, demands, costs and expenses relating to claims made by any third party arising out of or in connection with such information.

8.   LIMITATION OF LIABILITY.

8.1   Notwithstanding Section 7, Deltix's cumulative liability, whether in contract, tort, or otherwise, arising out of or in connection with the Software or this Agreement and committed by intentional acts shall not exceed the amount of any Fees paid to Deltix by Customer in respect of the Software or Service that gave rise to any claim.

8.2   IN NO EVENT SHALL DELTIX BE LIABLE FOR ANY INDIRECT, LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF DATA, INTERRUPTION OF BUSINESS, FOR SPECIAL, INCIDENTAL, EXEMPLARY, PUNITIVE, CONSEQUENTIAL OR OTHER INDIRECT DAMAGES OF ANY KIND, FOR DAMAGES RELATING TO FAILURE OF TELECOMMUNICATIONS, THE INTERNET, ELECTRONIC COMMUNICATIONS, CORRUPTION, SECURITY OR LOSS OR THEFT OF DATA, FOR INABILITY TO ACCESS THE SOFTWARE, WHETHER BASED ON CONTRACT, TORT (INCLUDING WITHOUT LIMITATION, NEGLIGENCE), WARRANTY, GUARANTEE OR ANY OTHER LEGAL OR EQUITABLE GROUNDS, EVEN IF DELTIX HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

8.3 No action arising out of or in connection with this Agreement or the Software, regardless of form, may be brought by Customer more than one (1) year after the occurrence of the events which gave rise to the cause of action.

8.4   Portions of the Software may be derived from or incorporate third-party software and no such third party warrants the Software, assumes any liability in connection with the Software or undertakes to furnish any support or information relating to the Software. All such third parties are intended third-party beneficiaries of this Agreement.

8.5   The limitations contained in this Section 8 shall survive the termination of this Agreement and apply notwithstanding the validity of the limited remedies provided for in this Agreement. The limitations set forth in Section 8.1 shall not apply to the indemnification obligations set forth in Section 7 above.

9.   TERM AND TERMINATION.

9.1   The term of this Agreement shall commence on the Effective Date and unless otherwise stated shall continue for a period of one year. This Agreement, and any fees associated with this Agreement, may continue for two additional terms the first additional term comprising 12 months, the second additional term comprising 12 months, if not less than ninety (90) days prior to the date upon which the then-current term is due to end, such additional terms are agreed by both parties in writing. For the avoidance of doubt, the total duration of this Agreement shall not exceed 36 months.

9.2   In the event that either party hereto materially defaults in the performance of any of its duties or obligations under this Agreement and does not substantially cure such default within thirty (30) days after being given written notice specifying the default, then the non-defaulting party may terminate this Agreement upon written notice thereof to the defaulting party, without recourse to a court, and receive a refund for any unused services. Where the Agreement is terminated on such grounds, the Party that breaches the Agreement shall pay to the other Party a penalty of USD 25,000 no later than within 20 days of the termination of the Agreement
In determining whether there has been made a material breach of the agreement, the following criteria must be taken into account:
1) whether the aggrieved party is substantially deprived of what it was entitled to expect under the agreement, unless the other party did not foresee and could not have reasonably foreseen such result;
2) whether, taking into consideration the nature of the agreement, strict compliance with the conditions of the obligation is of essential importance;
3) whether the obligation is not observed intentionally or due to gross negligence;
4) whether the non-performance of the agreement gives the aggrieved party the basis to suppose that it cannot believe in the future performance of the agreement;
5) whether the party that failed to execute the agreement was preparing to execute the agreement or was in the process of executing it, would suffer significant damages if the agreement was terminated.

9.3. If necessary, the Customer may terminate the Agreement in the second or the third year of service provision by submitting a written notification to the supplier at least 30 calendar days in advance. In such case, the Customer undertakes to make the payment for the appropriate and high-quality Software and Services provided prior to the termination of the agreement, and Deltix undertakes to return the charge paid for the unused Services no later than within 20 days of the termination of the Agreement. Where the Agreement is terminated on these grounds, the termination of the Agreement shall not be subject to a penalty.

9.4 This Agreement may be terminated by written consent of both Parties. In such case, the Customer undertakes to make the payment for the appropriate and high-quality Software and Services provided prior to the termination of the agreement, and Deltix undertakes to return the charge paid for the unused Services no later than within 20 days of the termination of the Agreement. Where the Agreement is terminated on these grounds, the termination of the Agreement shall not be subject to a penalty.

9.5   Upon any termination of this Agreement, the license granted in Section 2 and all other rights and obligations of the parties under this Agreement shall terminate, except that, notwithstanding the foregoing, the rights and obligations under Sections 4, 5, 6.3, 7, 8, 9.5, 9.6 and 10 of this Agreement shall continue in full force and effect.

9.6   Termination of this Agreement shall not limit either party from pursuing any other remedies available to it, including injunctive relief, nor shall such termination relieve Customer's obligation to pay all fees that accrued prior to such termination. Neither party shall be liable to the other party for any costs or damages of any kind, including incidental or consequential damages, or for indemnification, solely on account of the lawful termination of this Agreement, even if informed of the possibility of such damages.

10.   <u>GENERAL PROVISIONS</u>.

10.1   The Agreement, including the initial Order Supplement, any subsequent Order Supplements, and any exhibits or schedules attached hereto, constitutes the entire understanding and agreement of the parties with respect to the subject matter thereof, and supersedes any and all prior or contemporaneous representations, understandings or agreements, whether oral or written, between the parties relating to the subject matter of this Agreement, all of which are merged in this Agreement.

10.2   During the term of this Agreement and for one (1) year thereafter, Customer shall not (i) hire any employee of Deltix or (ii) directly or indirectly solicit, recruit or induce any employee of Deltix to terminate his or her employment with Deltix. The foregoing does not apply to individuals hired as a result of the use of an independent placement agency or a general solicitation or advertisement.

10.3   Customer shall comply with all applicable export laws and regulations.

10.4   The covenants of Customer in Section 2 and Section 5 hereof are of a special and unique character, and Customer acknowledges that money damages alone will not reasonably or adequately compensate Deltix for any breach of such covenants. Therefore, Deltix and Customer expressly agree that in the event of the breach or threatened breach of any such covenants, in addition to other rights or remedies which Deltix may have, at law, in equity, or otherwise, Deltix shall be entitled to injunctive or other equitable relief compelling specific performance of, and other compliance with, the terms of such Sections.

10.5   The parties to this Agreement are independent parties and nothing herein shall be construed as creating an employment relationship between the parties. Neither party is an agent or representative of the other party and neither party shall have any right, power or authority to enter into any agreement for or on behalf of, or incur any obligation or liability, or to otherwise bind, the other party. The Agreement shall not be interpreted or construed to create an association, agency, joint venture or partnership between the parties or to impose any liability attributable to such a relationship upon either party.

10.6   This Agreement shall inure to the benefit of and be binding upon the parties hereto, their successors and permitted assigns. Any assignment of this Agreement shall be void except with the written consent of the other party, where such consent will not be unreasonably withheld, conditioned, or delayed, except that either party may assign this Agreement without the other party's consent as a part of a corporate reorganization, consolidation, or merger, to a purchaser of all or substantially all of its assets, or to a successor in interest of the applicable party. Notwithstanding the foregoing, any assignment by Customer in accordance with this Section 10.7 shall require Deltix's prior consent if the assignee provides software or services for quantitative or financial research or trading.

10.7   The laws of the State of New York shall govern this Agreement without giving effect to applicable conflict of laws provisions or to the United Nations Convention on Contracts for the International Sale of Goods. The parties agree that the jurisdiction and venue of any action with respect to this Agreement shall be in a court of competent subject matter jurisdiction located in the State of New York, and each of the parties hereby agrees to submit itself to the exclusive jurisdiction and venue of such courts for the purpose of any such action.

10.8   Except as specifically provided in this Agreement, all notices required hereunder shall be in writing and shall be given by personal delivery, overnight courier service or registered mail, to the parties at their respective addresses set forth below, or at such other address(es) as shall be specified in writing by such party to the other party in accordance with the terms and conditions of this Section 10.8. All notices shall be deemed to have been given on the day of actual receipt thereof. Notices shall be sent as follows:

    (a)   if to Deltix:

EPAM DX, LLC
41 University Drive,

Suite 202,
Newtown, PA,

18940
Attn: Legal

    (b)   If to Customer:

Bank of Lithuania
Gedimino pr. 6, LT-01103Vilnius,
Lithuania
Bank: JPMorgan Chase Bank N.A., New York
(SWIFT BIC – CHASUS33)
Account No: 400925702
IBAN:
E-mail address: IT-sutartys@lb.lt,
████████████████████████████

Automation Division

10.9   No waiver of any provision of this Agreement, or any rights or obligations of either party under this Agreement, shall be effective, except pursuant to a written instrument signed by the party or parties waiving compliance, and any such waiver shall be effective only in the specific instance and for the specific purpose stated in such writing. The failure of either party to require the performance of any term of this Agreement or the waiver of either party of any breach under this Agreement shall not operate or be construed as a waiver of any other provision hereof, nor shall it be construed as a waiver of any subsequent breach by the other party hereto.

10.10   If any term, provision, covenant or condition of this Agreement is held invalid or unenforceable for any reason, the remainder of the provisions shall continue in full force and effect and such term, provision, covenant or condition shall thereafter be construed such that it is valid and enforceable and gives effect to the intent of the parties hereto.

10.11   The terms and conditions of this Agreement may not be modified or amended other than by a writing signed by both parties. During the contractual period, the procurement contract can only be amended in the cases and the scope detailed in Article 89 of the Law on Public Procurement of the Republic of Lithuania.

10.12   Either party shall be excused from any delay or failure in performance hereunder caused by reason of any occurrence or contingency beyond its reasonable control, including but not limited to, access to the Hosting Partner, acts of God, earthquake, labor disputes and strikes, riots, war, common carrier interruptions, breakdown in facilities and government requirements. The obligations and rights of the party so excused shall be extended on a day-to-day basis for the period of time equal to that of the underlying cause of the delay.

10.13   The section and paragraph headings used in this Agreement are inserted for convenience only and shall not affect the meaning or interpretation of this Agreement.

10.14   This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which taken together shall constitute but one and the same instrument. This Agreement may be executed and delivered by facsimile and the parties

agree that such facsimile execution and delivery shall have the same force and effect as delivery of an original document with original signatures, and that each party may use such facsimile signatures as evidence of the execution and delivery of this Agreement by all parties to the same extent that an original signature could be used.

10.15 Person appointed by the Client that is responsible for execution of the Agreement and public disclosure of it:
10.16 The following Exhibits are integral part of this Agreement:

Exhibit A "Order Supplement for the Software and Services Agreement"
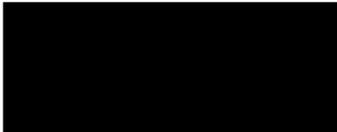Exhibit B "Technical Support Policy"

     IN WITNESS WHEREOF, the parties have duly executed and delivered this Agreement as of the Effective Date set forth above.

EPAM DX, LLC   Bank of Lithuania

By: ████████   By: December 22, 2023

Name: Jason Peterson   Name: Gediminas Šimkus

Title: President   Title: Chairman of the Board

Exhibit A.

Order Supplement for the Software and Services Agreement BOL-NOV-2023

	EPAM DX, LLC 41 University Drive, Suite 202, Newtown, PA, 18940 Phone: 1–617–901-7450 Fax: 1–781–207-1296

Customer Name:	Adomas Kučinskas
Organization:	Bank of Lithuania
Address:	Gedimino pr. 6, LT-01103Vilnius, Lithuania Phone: (+370 5) 268 0602

Table

No.	Name	Measurement unit	Maximum quantity	Unit price (USD w/o VAT)	Total price (USD w/o VAT)
1	2	3	4	*5*	*6=4X5*
1	Automated investment and quantitative analysis software licences, including software support	months	36*	▓▓▓▓▓▓	▓▓▓▓▓▓
2	Development and consulting services	Man days	125*	▓▓▓▓▓▓	▓▓▓▓▓▓
3	Dell Server Support Services – For year 1 of this Agreement: PowerEdge R640/R440 Upgrades and Extensions. For years 2 and 3 of this Agreement: Post Standard Support service (covers hardware issues	months	36*	▓▓▓▓▓▓	▓▓▓▓▓▓

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	only)					
7	Total price (USDw/o VAT)					828,240
8	VAT					
9	Total price (USD) + VAT					828,240

Total price (USD) + VAT (in words): Eight hundred and twenty eight thousand two hundred and forty US dollars

*
The Bank of Lithuania does not undertake to purchase the maximum quantity and will purchase services according to the actual demand.

** Automated investment and quantitative analysis software licenses, including software support

QuantOffice Studio-7 User License;

Timebase-5 Live instances (Production Cluster at 1 location and Research cluster at 2nd location) disaster recovery instance is included;

TimeBase includes two market data adapters, from the EPAM DX currently supported list

Strategy Trading Server-1 Live instance (Production Cluster at 1 location); disaster recovery instance is included.

Strategy Trading Server includes one trading adapter and one drop copy adaptor, from the EPAM DX currently supported list

Trading Console-3 User License;

RiskMonitor-1User

TCA Module- 1 User

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TECHNICAL SPECIFICATION

QUANTITATIVE STRATEGY PLATFORM SOFTWARE AND ITS LICENCES AS WELL AS DEVELOPMENT, SUPPORT AND RELATED SERVICES
I. Introduction

1.1. The Bank of Lithuania is trading in futures, which are traded on the Chicago Mercantile Exchange (hereinafter referred to as the Exchange). The Bank of Lithuania (LB) needs a CEP (Complex-Event Processing) platform for quantitative strategy analysis and trade (hereinafter referred to as the platform), complete with software and hardware, that would allow the Bank of Lithuania to trade in futures on the Chicago Exchange.

1.2. The supplier has to deliver to the Bank of Lithuania a platform's software that meets the requirements indicated in this technical specification (hereinafter referred to as the specification. The supplier will provide technical support to the Bank of Lithuania for the software products .

II. Description of requirements for the procurement object

2. The supplier has:

. 2.1. Deliver to the Bank of Lithuania automated investment and quantitative analysis platform's software that meets the functional requirements indicated in point 3.1 of this specification (hereinafter referred to as software) and the necessary software licenses. The supplier shall provide the Bank of Lithuania with the software licenses no later than 1 week after the contract is signed and install the software in the servers of the Chicago data centre no later than 1 week after the servers are installed.

2.2. If needed, to train the Bank of Lithuania employees on a remote basis to work with the software. Preliminary training duration – 30 hours (these costs must be included in the offer price);

2.3. Provide the Bank of Lithuania with the possibility of accessing the software installed on the servers and testing it out.

2.4. Install software that would ensure data flow on the platform as indicated in Diagram 3 of this specification, upload historical financial data into the software program, integrate it with the supplier of real-time financial data indicated by the Bank of Lithuania and the Bank of Lithuania's broker of choice. For the entire duration of the procurement contract, the Supplier shall ensure a connection between the Bank of Lithuania servers in Chicago with the chosen supplier of real-time financial data and the chosen broker. The Supplier should also assess and include in the cost of the connection all the expenses associated with setting up and maintaining this connection.

2.5. Throughout the entire duration of the Procurement Contract, the Supplier shall provide the Bank of Lithuania with the necessary software licences, technical software support

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and development services (additional functionalities not defined in clause 3.1) as well as consultation related, but not limited to, the use of this software, for instance:

- Strategy trading server
- Matlab & R integration
- Risk Monitor / Configuration of limits
- Risk rules API
- Risk-rule strategy examples
- Optimization tests
- User Access Control (UAC)
- Multi-strategy Runner

2.6. In their proposed tender price, the supplier must include all the expenses (i.e., additional software, components and any other resources) they might incur if they are to successfully support the indicated software running on the servers. Both one-off fees and monthly service rates must be included.

2.7. The Supplier must install VPN connection and, throughout the entire duration of the Procurement Contract, provide technical support for the maintenance of the existing DELL servers and VPN connection between the Bank of Lithuania's servers at Žirmūnų g. 151 in Vilnius and the Bank of Lithuania's servers which will be installed by the Supplier at the Chicago Data Center (hereinafter – the Data Center). Bank of Lithuania trade servers are located at Iress, c/o CME AURORA, Deliveries, 2905 Diehl Road, Aurora, IL 60502, USA at the moment. The supplier is free to select a data centre so that the distance between the Bank of Lithuania trade servers in the data centre at the address indicated in the tender by the Supplier and the Exchange is no greater than 80 km. In case of servers relocation the Supplier shall provide written confirmation from the proposed data centre of the fact that the servers are indeed at the data centre. As part of the proposed price for services related to ensuring a VPN connection between the Bank of Lithuania and the servers at the data centre in Chicago, the Supplier shall include all the costs associated with the establishment and technical maintenance of a VPN that would ensure an uninterrupted VPN connection.

2.8. For the entire duration of the contract, the supplier shall provide the Bank of Lithuania with technical support services for these servers and ensure their successful operation. The supplier shall assess and include the costs associated with server maintenance and use, power supply, rental of space, internet connection, etc. into the price proposed for their technical server support services.

III. Requirements for software functionality
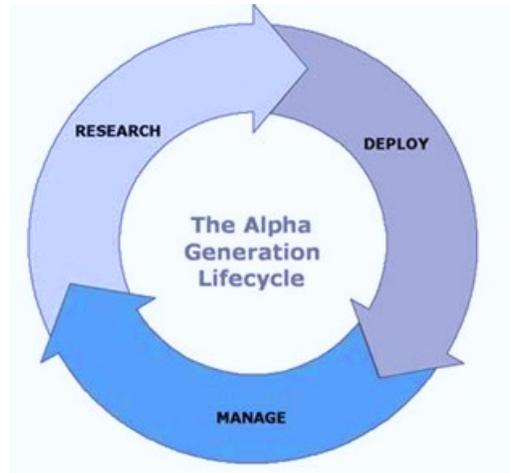
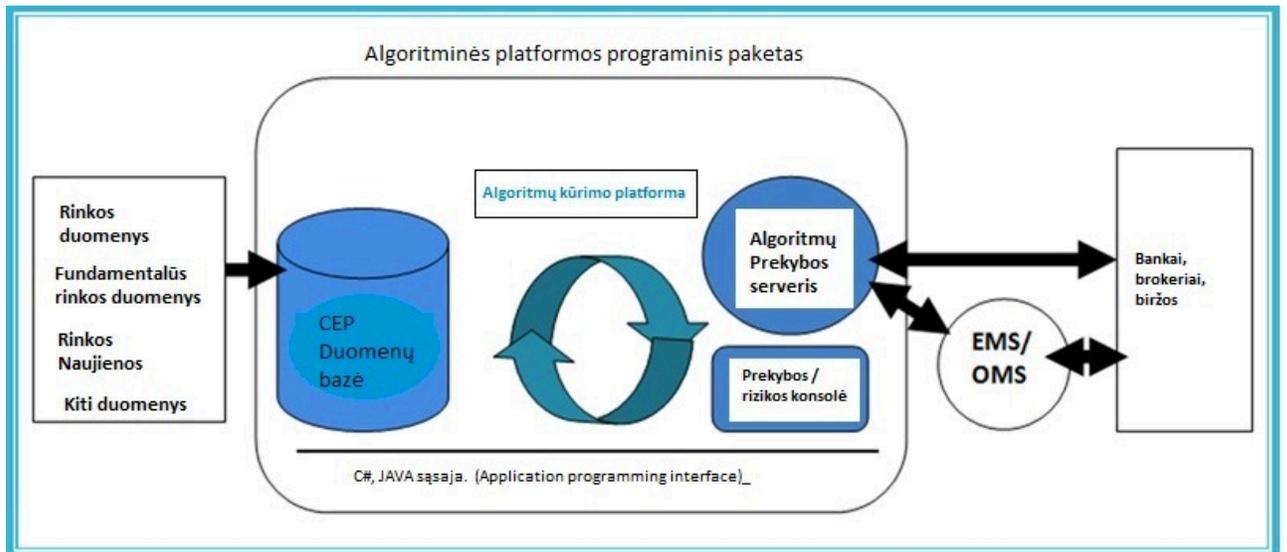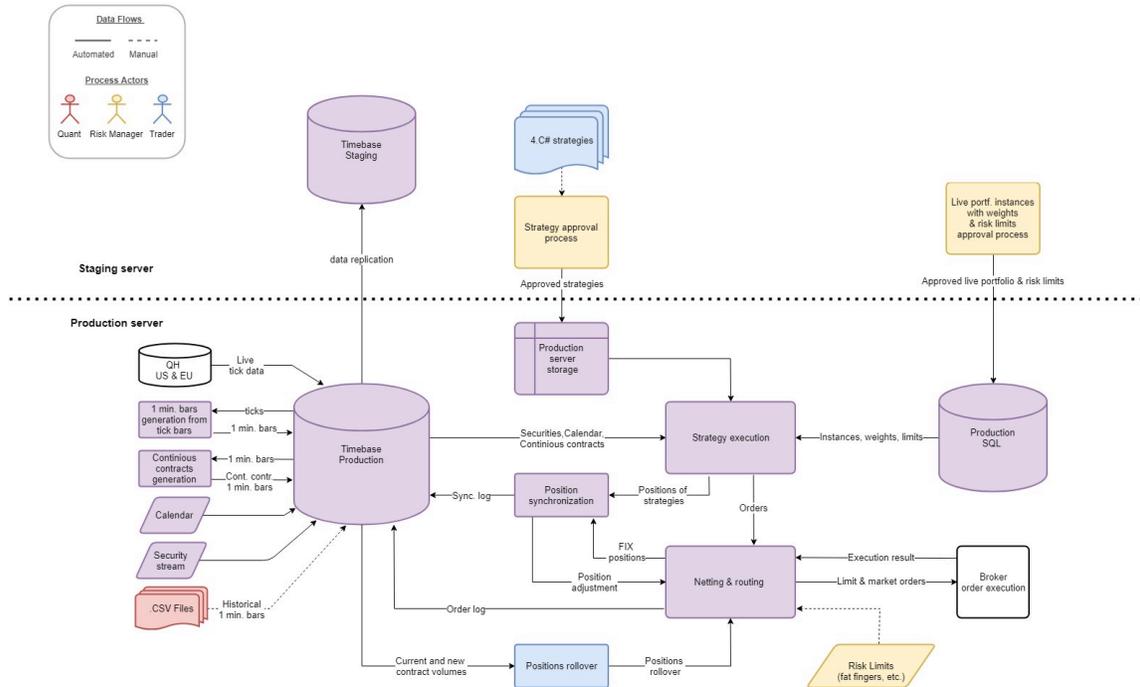Diagram 1. **Software diagram No. 1**

Diagram 2. **Software diagram No. 2**

Diagram 3. Data flow diagram:
Note: The data flow depicted in Diagram 3 should be fully functional within 1 months of the contract being signed.

1.1. Software must have these functions:

1.1.1. Data Acquisition

Built-in Time-Series Data Warehouse

Built-in CEP capabilities

Support of Historical Data, 60 futures instruments. Timeframe from 1 minute till 1 week frequency. Updated tick by tick.

Support of Real-Time Streaming: 60 futures instruments. Timeframe from 1 minute till 1 week frequency. Updated tick by tick.

No proprietary Language (ie can use .net, Python, R etc)

Built-in Messaging Middleware

Support of multiple data sources

Support of Level II and Level 3 Data

Support of Tick Data

Support of Intra-Day Bar Data

Support of News Data

Support of Fundamental Data

Support of Custom Events

Support of High Performance Computing (Bring Data to Analytics)

1.1.2. Data Analysis & Strategy Development

Single-Instrument Strategies: ~20-500 lines of code per strategy. Up to 25 numbers of rules per strategy.

Portfolio Strategies

Synthetic Instruments

Multi-Asset Class Strategies

Support of flexible futures rolling rules

Supported languages (C#, Dot Net, Java etc). Visual Studio. Net integration.

Built-in flexible CEP capabilities

Built-in software debugger

Multi-Currency Strategies

Multi-Periodicity Strategies

Support of Multi-Strategy Trading >500 strategies simultaneously

Built-in Execution Management Capabilities

Wizard-Based Strategy Development Capabilities

GUI-Based Strategy Development Capabilities

Integration with Python, Matlab, R and External Packages

Built-in Technical Indicators Library

Built-in Predicate Library

Built-in High-End Math Libraries (support of MKL)

Built-in Event-Driven Charting

Built-in Advanced Reporting

Ad-hoc Analytics and Reporting

3.1.3. Strategy Backtesting

Level 2 Simulation and Backtesting

Level 1 (Tick-based Simulation)

Intraday-bar simulation

Daily simulation

Support of Algo execution

Order execution visualization

Dynamic subscriptions for multi-periodicity strategies

Multi-strategy multi-portfolio backtesting

3.1.4. Strategy Optimization

Built-in brute-force optimization: Min requirement is: ability to run optimization 24/7 on 1minute   OHLC timeframe on whole instruments universe

Built-in genetic optimization

Built-in multi-variance basket optimization

Built-in walk forward optimization

Integration with external libraries

Support of AI and Machine Learning

Support of grid/cloud computing

3.1.5. Simulated Trading

Availability of live data feed simulator

Availability of order book exchange simulator

Multi-strategy simulation

3.1.6. Production Trading

Architecture (server, desktop)

Support of collocated deployment

Support of Linux/Windows deployment

Support of Automated Trading Strategies execution

Support of Discretionary Trading

3.1.7. Market data feed

Built-in market data adaptors to major high-end ticker plants

Simultaneous multi-source multi-vendor market data streaming

Seamless transition from simulated to real-time trading

Support of market depth (L2)

Automatic reconnect

Data feed redundancy

Custom channels as strategy input

3.1.8. Trading connectivity

Support of FIX

Execution algos

Multi-server deployment

Support of internal crossing

Built-in risk rules

Order and position persistency

3.1.9.Trading Console

Flexible Order Management

Flexible Position Management

Multi-strategy deployment , trade live ~ 500 strategies simultaneously

Multi-portfolio deployment

Support of synthetic Instruments

Flexible dynamic charting

Grey-box capabilities (support of dynamic interactions between the user and the strategy)

Kill Switches

Expendability (custom GUI development)

3.1.10.Real Time Custom Trading Strategies

Portfolio Deployer

Portfolio Tracker

Risk Controller

Netter

Live Continuous Data Writer

Live Fx Bar Aggregator

Live Futures Bar Aggregator

Live Rolling By Volume Writter

Explain the terms

Event processing is a method of tracking and analyzing (processing) streams of information (data) about things that happen (events), and deriving a conclusion from them. Complex event processing, or CEP, is event processing that combines data from multiple sources to infer events or patterns that suggest more complicated circumstances. The goal of complex event processing is to identify meaningful events (such as opportunities or threats) and respond to them as quickly as possible.

CEP Database:
CEP Database is a high performance event-oriented time-series database engine and messaging middleware. CEP Database is designed explicitly for very fast population and retrieval of massive volumes of time-series data and delivering that data for subsequent use by both research platform and third-party software. High volumes data such as fundamental data, news data, daily, bar, tick and Level II (depth of market data) are handled with superior speed. Processing speeds are measured in millions of messages per second on terabytes of data. CEP Database can be populated with historical data and receive real-time data feeds. CEP Database has a sophisticated time-series join engine, capable of efficient on-the-fly merging of multiple data streams with arbitrary temporal characteristics into a unified query response.

Rapid Visual Analysis
The output of strategies (indicators, trading signals, orders, executions and P&L) is rapidly displayed graphically, at the instrument and portfolio levels. Microscopic inspection of this output can be performed to see the movement of ticks within bars and the generation of signals, orders and executions at tick periodicities. This allows for rapid evaluation, refinement and re-running of models in an iterative process. The performance of the charting is extraordinary: it takes mere seconds to back-test all instruments in the S&P500 across years' of tick data.

Performance
The run-time operation of the models (in back-testing and simulation modes) is immensely fast, as a result of message processing measured in millions of records per second. The output of models operating over hundreds of instruments across years' worth of tick data literally takes seconds. In addition to superior engineering.

Optimization
Optimization of model parameters by brute-force, genetic and dynamic (walk-forward) methods. One of the exciting features of dynamic optimization is the ability to define a "meta strategy", that is, a strategy which controls, in respect of when they run, other "sub" strategies. Ability to use multiple machines cluster (Hadoop-like MapReduce calculations) to scale Optimization processes.

Trading calendars and holidays for all exchanges
Trading calendars and holidays for all exchanges. Within these constraints, users can define custom trading sessions such as different trading intervals, "no trading" days and continuous 24-hour trading. For synthetic instruments, platform automatically defines trading session intervals as the intersection of trading sessions for the source exchanges of the synthetic instrument.

Advanced customizable price construction engine

Highly granular price construction algorithms for different quote sizes, customer segments and individual customers based on practically unlimited amount of input factors. parameterized algorithms can be changed on the fly (e.g. spreads, sensitivities). low latency connectivity to multiple dealer platforms makes these prices available for customer execution.

Adaptive customizable hedging
Advanced hedging algorithms, developed by users, apply rules to currency positions as trades are executed and as prices change thereby enabling you to deploy extremely precise hedging rules. Dynamic parameterization allows you change to algo behavior on the fly and so respond to unexpected market conditions in real-time.

Smart order routing abilities

Individual order books from multiple liquidity providers and aggregated order books by currency pair are maintained in cep database. adaptive smart order routing defines the best execution plan and splits hedging orders into child orders for best execution at multiple venues.

Research, back-testing & simulation: same models for research & production
Both price construction and hedging algorithms are designed, back-tested and simulated in platform against data collected from multiple liquidity providers and recorded in cep database. Once developed and refined, models are deployed "as is" into the production market making environment.

Execution Management
Strategy Trading Server and Trading Console**:** the two modules required for production deployment of trading strategies created. Once created, a strategy is "published" in Strategy Trading Server. Trading Server converts trading signals into FIX orders and executes them according to the execution strategy potentially via multiple brokers. The progress of the trading (that it is: status of orders, execution, P&L and performance) are monitored in Trading Console. Trading Console is designed for very high performance, processing hundreds of thousands of messages per second, arising from hundreds of instruments and hundreds of strategies.
Trading Console
Trading Console is a set of real-time monitors of order and execution status, P&L and performance, risk and portfolio analytics. The trade blotter monitor, allows for "grey box trading", that is, users may interact with the model by cancelling some or all of the orders created by the model.

Risk Management
A dedicated Risk Monitor screen can be used to set trading limits such order size, position size, number of positions, order submission rate etc. Limits can be set at different levels, e.g. broker, trader.
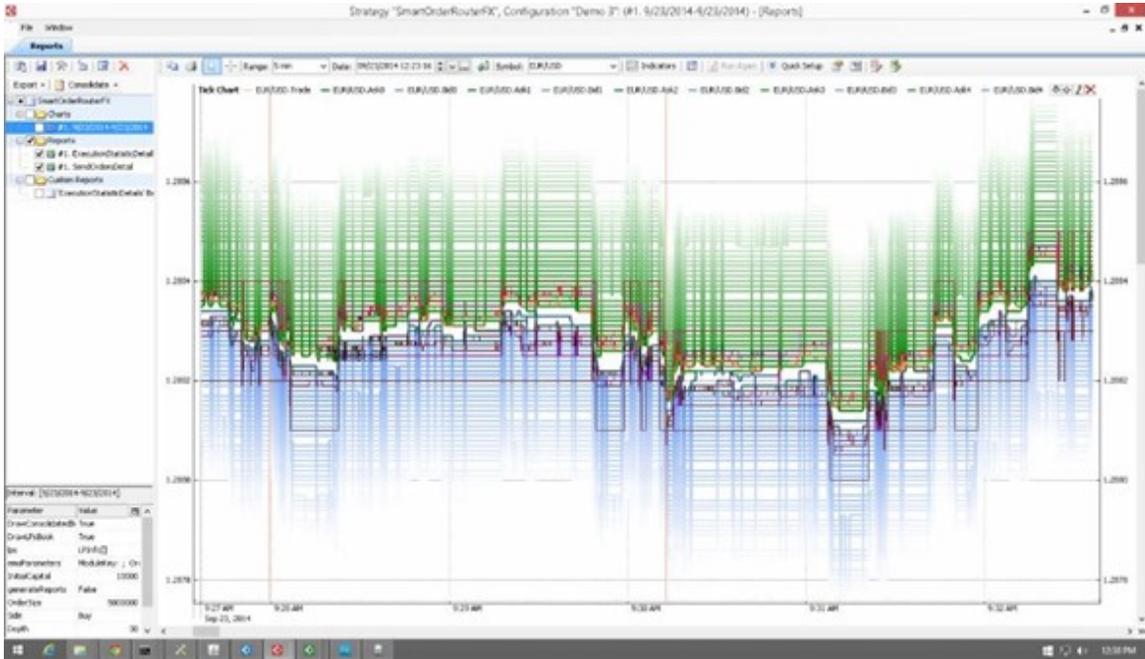**API**
The API is vendor-independent and provides complete access to the capabilities supported by the FIX protocol, as well as the ability to utilize individual vendor extensions, if so desired.

Strategy Deployment. Live vs. Simulated Trading vs. Back-Testing Transparency
The switch between the trading simulators, paper trading and live trading is transparent to the trading strategy. With a single click of a button, a user-defined strategy is uploaded to the server,

instantiated and hooked up to the data feeds and trading services. There are graphical tools for deploying algorithms to remote data centers.

Diagram 4. Example of possible visual representation

IV. Requirements for TENDER

No. No.	Indicator	Requirement	Indicator value
(**Note**: **all software parameters** listed below **are required**)			
1. Software			
1.1	Software name	The supplier shall propose software that meets the requirements of the procurement documents.	- QuantOffice Studio-7 User License; - Timebase-5 Live instances (Production Cluster at 1 location and Research cluster at 2 nd location) disaster recovery instance is included; TimeBase includes two market data adapters, from the EPAM DX currently supported list - Strategy Trading Server-1 Live instance(Production Cluster at 1 location); disaster recovery instance is included.

No. No.	Indicator	Requirement	Indicator value
			Strategy Trading Server includes one trading adapter and one drop copy adaptor, from the EPAM DX currently supported list - Trading Console-3 User License; - RiskMonitor-1User - TCA Module- 1
1.2.	the functionality of the software the Supplier proposes meets the requirements indicated in point 3.1 of the technical specification.	The supplier provides internet link(s) and access to platform through which the CA can test the software and check whether it meets the necessary requirements.	EPAM will provide a URL, username and password by to a remote system where this functionality may be checked. These will be supplied by telephone as EPAM does not release users and passwords in documents or emails.
1.3.	The location of the data centre in Chicago where the supplier is committed to installing the CA servers and which should be at a distance of no more than 80 km from the Exchange.	The supplier indicates the location of the data centre and its distance from the Exchange.	Iress, c/o CME AURORA, Deliveries, 2905 Diehl Road, Aurora, IL 60502, USA (this data centre is the same as the exchange data center so the distance is 0 km)

DELTIX and the Customer agree that the Software and Services listed above are provided by DELTIX to the Customer subject to the terms and conditions of the above-referenced Agreement.

Customer Acceptance:

Name: Gediminas Šimkus, Chairman of the Board

Signature:

Date: December 22, 2023

Deltix Acceptance:

Name: Jason Peterson

Signature:

Date: 12/28/2023

Exhibit B
Technical Support Policy

1. Introduction

1.1 <u>Definitions</u>
Unless otherwise stated in this Technical Support Policy, all defined terms used herein shall have the same meaning as in the **SOFTWARE LICENSE AND SERVICES AGREEMENT** (the "Agreement"). References to Software in this Technical Support Policy shall refer to the Software as such term is defined in the Agreement.

1.2 <u>Overview</u>
This document establishes policies for Deltix Technical Support Services for the Deltix Software. The following are discussed:

- Technical Support
- Problem Response Times

2. Technical Support

Technical Support is available during the term of the Agreement, so long as Customer purchases Technical Support.

<u>Coverage</u>

Deltix Technical Support as described below is available 5 days per week, 9 hours per day. The office staffing hours for Technical Support will be as follows: Monday through Friday: 8:00 A.M. to 5:00P.M. (EET) excluding Deltix holidays. Requests received after 5:00 PM, are deemed to have been received during the next Deltix workday. Deltix holidays are defined as those set forth by the New York, London and Hong Kong stock exchanges.

<u>Technical Support</u>

Deltix will provide Technical Support for the Software, upon receipt of notice(s) from Customer specifying failure(s) of the Software to perform substantially in accordance with the applicable Documentation for the current unaltered release of the Software, and upon receipt of such additional information as Deltix may reasonably request.

Deltix Technical Support will include:

I. <u>Hotline Support.</u> Deltix will make available to Customer via the portal deltixuser.net, during normal Deltix business hours, (as described above section "Coverage") qualified personnel to aid Customer in the resolution or verification of Software problems.

II. <u>Error Corrections.</u> Upon receipt of written notice(s) from Customer specifying failures or errors found in the Software, and upon receipt of such additional

information as Deltix may request, Deltix will use reasonable efforts to correct all Software not performing substantially in accordance with the applicable Documentation of the current release of the Software, provided such notice is received by Deltix during the term of Technical Support. Deltix is not obligated to perform investigation and/or corrections of defects found by Deltix to be (i) caused by improper or unauthorized use of the Software; or (ii) due to external causes such as, but not limited to, power failure or electric surges.

III. <u>Updates.</u> From time to time Deltix may issue modified or enhanced versions of the Software, which it incorporates in the then current version of the Software and generally makes available to its customers of the Software at a nominal charge (a "New Release"). Deltix will provide Customer with one (1) complete copy of each New Release and one (1) copy of the Documentation update for the Software covered by the New Release. Deltix shall provide the services described in section II above for the "current" release of the Software as follows. Following delivery of New Release materials, only the New Release will be considered current. New Releases will only be issued if Customer has current Technical Support in effect.

3. Software Problem Response Times

Based upon the Severity Level of the problem, whose categorization is further defined below, Deltix will respond to Customer and initiate problem resolution activities within the following timetable:

	Response/ Acknowledgment	Targeted Resolution Time
Priority 1 - Critical Problem	2 Hours	1 Day
Priority 2 - Major Problem	4 Hours	2 Days
Priority 3 - Minor Problem	72 Hours	Next Release

A Priority 1 - Critical Problem is defined as a problem which renders the Software unusable or materially impacts Customer's ability to use the Software in a production environment.

A Priority 2 - Major Problem is defined as a problem which causes a Software feature failure that cannot be avoided by alternate methods by Customer and severely impairs Customer from using the Software as documented.

A Priority 3 - Minor Problem is defined as a problem which causes only a minor inconvenience to Customer including, but not limited to, misspelled error messages and documentation errors.

4. **Enhanced Support**

Provided that Customer purchases Enhanced Support, Deltix will provide enhanced support for the Software upon receipt of notice(s) (by telephone and by recording problems in Supplier's issue tracking system, deltixuser.net) from Customer specifying failure(s) of the Software to perform in accordance with the applicable Documentation for the current unaltered release of the Software.

Problem Response and Resolution Times under Enhanced Support

	Acknowledgment	Resolution Time
Priority 1 - Critical Problem	5 Minutes	The Supplier shall use best endeavours to have a work around to eliminate the immediate impact of the problem within a day.
Priority 2 – Major Problem	2 Hours	The Supplier shall use best endeavours to have a work around to eliminate the immediate impact of the problem within a day and provide a patch release at a later date.
Priority 3 - Minor Problem	4 Hours	Fixes delivered by the Supplier in the next release.

Customer Acceptance:

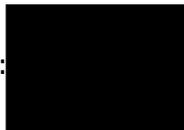Name: Gediminas Šimkus, Chairman of the Board

Signature:

Date: December 22, 2023

Deltix Acceptance:

Name: Jason Peterson

Signature:

Date: 12/28/2023