THIRD Change Order to Work In-take Form A-146

of the Flexible Services Model Statement Work

Between Teachers Insurance and Annuity Association of America

and Cognizant worldwide limited

TIAA Project Request: A-146

TIAA Contract ID: ?

This Third Change Order **(“Third Change Order”**) to the Work In-Take Form entitled **SAG-Exit** and dated March 1, 2023 between Teachers Insurance and Annuity Association of America (“**TIAA**”) and Cognizant Worldwide Limited (“**Supplier**”) (“**Work In-Take Form**”) is effective as of March 1, 2023 and is incorporated and made part of the Flexible Services Model Statement of Work dated December 23, 2011 attached to the Master Services Agreement (“**Agreement**”) between the Parties with an Effective Date of December 22, 2016. The Agreement including, including the Statement of Work and WITF, shall remain in full force and effect, except that it shall be supplemented as set forth in this Third Change Order. Any capitalized terms that are not defined in this Third Change Order shall have the meaning set forth in the Agreement, including Statement of Work and WITF. Should a conflict arise between this Third Change Order and the Agreement, the provisions of the Agreement shall control. Should a conflict arise between this Third Change Order and the Statement of Work or WITF, the provisions of this Third Change Order shall control.

**STATEMENT OF PURPOSE**

WHEREAS, TIAA and Supplier entered into the Work In-Take Form, for the purpose of having Supplier provide technology Services as set forth in the Work In-Take Form; and

WHEREAS, the Parties desire to amend the Work In-Take Form, pursuant to this Third Change Order, to extend the current scope of Services through **Dec 31, 2025**;

NOW THEREFORE, In consideration of the mutual promises and covenants contained herein, and for other valuable consideration, the adequacy and sufficiency of which are hereby acknowledged, the Parties agree as follows:

**AGREEMENT**

Section entitled **“WITF Term”** of the WITF is hereby amended by extending the term from **Feb 1st, 2025** to **Dec 31st , 2025**

Section entitled “**Resources/Staffing Schedule**” of the Work In-Take Form is hereby amended to include the resources to be staffed to perform the services for this WITF

Supplier will provide the Services and Work Product set forth herein on a fixed fee basis.

**Overview**

TIAA has converted several of its legacy applications from Natural and Adabas technology stack to Angular, Java and SQL Server technology stack. Cognizant will implement the recommendations on performance tuning, QA identified defects, Data Simulation issues and enhancement in batch execution, UI and online which was provided as part of the earlier assessment and prioritized based on the capacity and time available. In addition, Cognizant will provide QA services for System Integration Testing (comprising of System test, Integration, Smoke, Regression, End to End test, test simulations, defect identification and closure) prioritized based on fixed resource capacity, project timelines and risk.

**Services in Scope:**

* Implement the performance tuning and QA identified functionality defects in EXIT-SAG modules.
* Involves the enhancement and new feature development.
* Recommend solution options for optimization.
* QA functional SIT services for identified UI, services, data, batch components:
  + All phases of testing lifecycle including test requirement analysis, test design and execution, defection identification and triage, risk identification and test closure
  + Create, maintain, and execute test stories in JIRA at consistent flow rate and story sizing.
  + Test Coordination between business, development, application and E2E QA teams, application SMEs, devops and test data support teams including requirement clarifications, defect triage calls, defect/mismatch/blockers simulation, status walkthrough and demos.
  + Support simulation testing
  + Database testing (SQL server), periodic data ingestions and load into test databases, integrity checks, defect triage, status reporting, prioritization for data block of work
  + Specialized services would include test automation framework, suite, utilities/BOTs, test data management, test architecture, business demos and support for UAT/devops/performance test team.

**Deliverables**

* Delivery methodology will align with Agile process prescribed by TIAA.
* Current state inventory of the spring batch programs highlighting the linking, dependency, input, output etc along with the UI and online.
* Opportunities for improvement and Solution options.
* Implement the prioritized identified items - Cognizant Resources will align to separate Container in Jira.
  + - * 11 stories per week for the flow velocity and flow Time will be under 7 calendar days.
      * Backlog will be prioritized based on the business need and will be moved to Cognizant Team Container.
      * Story alignment must be maintained between TIAA and Cognizant team before the development.
    - Develop Technical designs in accordance with the requirements.
    - Participate and contribute in software and architectural development activities.
    - Perform at an advanced technical level and demonstrate complete understanding of all phases of systems analysis.
    - Prioritized list of recommendations that can be implemented by Cognizant team in the rest of time within the capacity available.
    - Implement the identified based on capacity (resources) and rest of the time available.
    - QA test stories and prioritization
    - Lean master test plan including test data and automation strategy.
    - Test Designs, execution logs and defect logs
    - Test Status reporting
    - Track and report progress using agreed upon Kanban flow velocity.
    - Risk identification and mitigation plan
    - Business demos
    - Test Phase Summary/ Go-NIGO reports during test closure.

**Deliverables – additional notes on Batch Job specific Stories**

Batch Job specific issues, that are currently focused on, are due to jobs bad performance (taking longer time for execution and Elapse time significantly higher than legacy run-on same volume of data). After code translation to distributed tech stack, cost of execution increased due to overhead on higher number of database calls, Database architecture, MQ integration, data conversion and file movement, new tightly coupled framework dependency etc. And these challenges are time consuming to identify, solutioning, fix it basically after that and these issues are not in same pattern. These are below activities from current experience to fix the performance tuning.

* Analysis the job execution, understand the issue, input data, application logs, Data volume to make sure we are testing against right Data set.
* Understand the logic at extent and internal dependencies.
* Debug the code, identify the time taking component and area of improvement.
* Solutioning and discussions with internal team
* Work with SME (Legacy team) on possible code changes without Data loss or incorrect output files
* If there is external dependency, work with external team.
* If the issues with translated code or framework, we have open Bugzilla defect and work with Modern systems team.
* If it is Store procedure change, then understand the SQL and tune it, make changes in the Store procedure and work Data Base team for code review and deployment.
* If Java code changes and config/ property changes are there, then make it , unit testing, rework , check-in , code review and deployment.
* Execute the job, generate and compare the report, identify the gaps, if any and Elapse time improvement
* Document all these changes and test result, handover to QA

**Dependencies**

* Any required systems access, email IDs, and/or background checks required for team members will be taken care of 2 weeks prior to the onset of work.
* TIAA SME’s will be available throughout the Program to address any queries and clarifications.
* Access to relevant systems/ databases will be made available to identified Cognizant project associates and will be provided within 2-3 days of onboarding an associate.
* Capacity planning, hardware & software procurement will be taken care by TIAA team.
* Backups, DR/ failover Setup, system upgrades will be taken care by TIAA.

**Assumptions**

* TIAA to provide appropriate access to tools, Software, applications, environments, document/code repositories.
* TIAA to configure IDs for all Cognizant team members before week 1 of the engagement. `
* TIAA to provide list of key Project Stakeholders & SME s who would be part of the discovery assessment discussions.
* TIAA will be responsible for any data masking needs of PII data/attributes while providing data.
* TIAA’s application IT team availability to share knowledge on the applications/systems to the Cognizant team as required.
* TIAA’s application IT team to provide required information to the Project team to align with on-going initiatives.
* TIAA to signoff user stories
* Environment availability > 90% of the time, excluding scheduled maintenance windows.
* UAT defect leakage will not be applicable if ST and UAT are executed in parallel.

**Supplier will be responsible for the following:**

**Measures and metrics:**

* Maintain Team metrics (e.g., team velocity, capacity, burn-down charts, commit to complete ratio etc.) using TIAA provided JIRA instance.
* Maintain Flow metrics (e.g., distribution, velocity, time, load etc.) using TIAA provided Task top instance.
* Maintain Team metrics to support dashboards (e.g., Quality, Release, Defect, Flow type etc.) using TIAA provided JIRA instance.

**Iteration**

* Meeting Iteration goals by delivering upon the committed stories for said Iteration.
* Meeting the definition of done for the Iteration.

**Requirement Definition / Sprint Planning**

* Document requirements and acceptance criteria for User Stories / Features.
* Conduct Sprint grooming to refine Product Backlog.
* Prioritize User Stories / Features for implementation.
* Create Sprint Plan with prioritized User Stories / Features.

**Business and Technical Design**

* Perform technical & database design activities.
* Prepare business and technical design documents and obtain TIAA’s approval (“Approved Client Specifications”).

**Configuration and Testing**

* Based on Approved Client Specifications,
  + - Develop code or configure Software.
    - Conduct unit testing.

**Assumptions and Dependencies**

* TIAA to provide appropriate access to tools, Software’s, applications, environments, document/code repositories.
* TIAA to configure IDs for all Cognizant team members, within 1 week after onboarding.
* TIAA to provide list of key Project stakeholders, Product Owners & SME s.
* TIAA’s application IT team availability to share knowledge on the applications/systems to the Cognizant team as required.
* TIAA’s application IT team to provide required information to the Project team to align with on-going initiatives.
* No SLAs or Penalties involved in Pre-prod support activities.

**Out of Scope/Exclusions**

* Any work item not explicitly called out as In Scope will be considered out of scope.
* Test data generation and data modifications.
* Testing for projects not part of Data Engineering Services.
* Non-Functional Requirement (NFR) Testing, Performance or Load Testing and Security Testing.
* Source Data Analysis/ Data Profiling.
* All kinds of support activities pertaining to Production environment.

**Governance Model for the Engagement:**

Cognizant will retain the team for nine members for this engagement. The standard governance structure that is followed between TIAA and Cognizant.

Graphical user interface

Description automatically generated

* Architect with specialization in conversion initiatives, for covering practices, architecture styles and patterns, and will manage scope and objectives prioritization.
* SME in distributed technology for covering analysis of the converted code, identifying linking / dependency patterns, invocation patterns, identifying opportunities for improvement and recommend & implement them with TIAA technical team.
* Full Stack Java Developer - Design, Develop, implement, and debug Full stack web applications primarily using java/J2EE technologies.

**OVERALL IMPACT TO COST**

The total cost impact to the SOW as a result of this Third Change Order is a fee Nine Hundred Forty-Nine Thousand Three Hundred Seventy Dollars and Ten Cents (**$949,370.1)** and an estimated expenses of Zero Dollars ($0) for a total cost increase Nine Hundred Forty-Nine Thousand Three Hundred Seventy Dollars and Ten Cents (**$949,370.1)**. A total accounting of the fees and expenses under the SOW are set forth in the below table:

|  |  |  |  |
| --- | --- | --- | --- |
| **WITF/CO** | **Fees** | **Estimated Expenses** | **Extended Cost** |
| SOW | $980,784 | $0.00 | $980,784 |
| CO1 | **$1,307,712** | $0.00 | **$1,307,712** |
| CO2 | **$949,370.1** | $0.00 | **$949,370.1** |
| **Total Fees & Expenses** | **$32,37,866.1** | **$0.00** | **$32,37,866.1** |

|  |  |
| --- | --- |
| **Services Model** | ☒ Fixed Fee Deliverables Based Services Model |
| **Term** | February 1st 2025 – December 31st 2025 |
| **Scope** | Individual Retirement and Investing |
| **Estimated Budget** | **$949,370.1** |
| **Overall Blended rate:** | |  |  | | --- | --- | | Month | Blended Rate | | Feb | 66.64 | | Mar | 67.62 | | Apr | 72.01 | | May | 72.01 | | June | 72.01 | | Jul | 71.18 | | Aug | 72.01 | | Sep | 72.01 | | Oct | 73.68 | | Nov | 72.01 | | Dec | 72.01 | |
| **Team Size** | Offshore – 3  Onsite – 3 [February to March]  Onsite – 4 [April to December] |
| **SLA Type** | ☐ Application Maintenance and Support  ☒ Application Migration  ☒ Testing |
| **TIAA Manager** | George Bothwell |
| **TIAA Business Area** | Retirements |

**Invoicing**

Payments for Services and Work Products under this WITF is based on a Fixed Capacity basis in accordance with the Acceptance Criteria set forth herein, will be invoiced and payable by TIAA as per the schedule in the table below.

|  |  |  |
| --- | --- | --- |
| **Work Product / Milestone** | **Projected Delivery Date** | **Payment Amount** |
| Upon acceptance by TIAA of Work Product - February   * API Development for Contract Processor and Contract Package Application. * Remittance Enrollment API development. | 2/29/2025 | $66377.52 |
| Upon acceptance by TIAA of Work Product - March   * API Development for Contract Processor and Contract Package Application. * Remittance Enrollment API development. | 3/31/2025 | $72421.02 |
| Upon acceptance by TIAA of Work Product - April   * API Development for Contract Processor and Contract Package Application. * Remittance Enrollment API development. | 4/30/2025 | $89214.3 |
| Upon acceptance by TIAA of Work Product - May   * API Development for Contract Processor and Contract Package Application. * Remittance Enrollment API development. | 5/31/2025 | $89214.3 |
| Upon acceptance by TIAA of Work Product - June   * API Development for Contract Processor and Contract Package Application. * Remittance Enrollment API development. | 6/30/2025 | $89214.3 |
| Upon acceptance by TIAA of Work Product - July   * API Development for Contract Processor and Contract Package Application. * Remittance Enrollment API development. | 7/31/2025 | $94316.34 |
| Upon acceptance by TIAA of Work Product - Aug   * API Development for Contract Processor and Contract Package Application. * Remittance Enrollment API development. | 8/30/2025 | $89214.3 |
| Upon acceptance by TIAA of Work Product - Sep   * API Development for Contract Processor and Contract Package Application. * Remittance Enrollment API development. | 9/31/2025 | $89214.3 |
| Upon acceptance by TIAA of Work Product - Oct   * API Development for Contract Processor and Contract Package Application. * Remittance Enrollment API development. | 10/30/2025 | $96003.42 |
| Upon acceptance by TIAA of Work Product - Nov   * API Development for Contract Processor and Contract Package Application. * Remittance Enrollment API development. | 11/30/2025 | $80717.7 |
| Upon acceptance by TIAA of Work Product - Dec   * API Development for Contract Processor and Contract Package Application. * Remittance Enrollment API development. | 12/31/2025 | $93462.6 |

**Resource Responsibilities/Staffing Schedule**

|  |  |  |
| --- | --- | --- |
| **WITF A-146** | **Architect** | * Participate in workshops/meetings with business/Product owners and key stakeholders. * Understand business objectives, explores existing data architecture. * Converts business requirements into technical requirements. * Help in outlining a design to integrate, centralize and maintain data aligning to future state architecture. Publish status reports |
| **WITF A-146** | **FSE Java Developer** Domestic / Offshore | * Java Developers are a hands-on programmer with deep understand and experience in full stack java development. * Expert level in Java programming and J2EE and web frameworks like spring, hibernate. * Experience in database management and Rest APIs * Experience in data pipeline and data movement that supports analytical applications. * Experience in Angular UI skills for designing the front end of the application |
| **WITF A-146** | **Distributed technology SME** – Domestic | * Analyze and validate business requirements. * Analyze technical solution integration & enable robust solution analysis |
| **WITF A-146** | **Quality Testing –** Domestic/ Offshore | * Participation in PI meetings, test coordination and status reporting * Create Test stories, Test Plan (Test Strategy) * Design and Execution of test scripts * Execution of Functional and Regression Cases * Metrics tracking, QA dashboard creation * Defect triage and test closure |

The Parties to this Third Change Order have caused it to be executed by their authorized representatives as of the dates set forth below.

**TEACHERS INSURANCE AND ANNUITY COGNIZANT worldwide limited**

**ASSOCIATION OF AMERICA**

By: By:

Name: Name:

Title: Title:

Date: Date:

SOLELY FOR THE PURPOSE OF AUTHORIZING CTS US TO ENTER INTO SOWS TO PERFORM LOCAL SERVICES IN THE UNITED STATES OF AMERICA IN ACCORDANCE WITH AND SUBJECT TO THE TERMS AND CONDITIONS OF THIS AGREEMENT:

**CognizANT TECHNOLOGY sOLUTIONS u.s. cORPORATION**

By:

Name:

Title:

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_