PASEGURUHAN NG MGA NAGLILINGKOD SA PAMAHALAAN
(GOVERNMENT SERVICE INSURANCE SYSTEM)
Financial Center, Pasay City, Metro Manila 1308

GSIS

REQUEST FOR SUBMISSION OF BEST OFFERS

[RE: SUPPLY, DELIVERY, CONFIGURATION AND IMPLEMENTATION OF THE ACTUARIAL SOLUTION]

The Government Service Insurance System (GSIS) is conducting Negotiated Procurement, under Two Failed Biddings, for the ***Supply, Delivery, Configuration and Implementation of the Actuarial Solution,*** with the Approved Budget for the Contract (ABC) of **Nine Million Five Hundred Thousand Pesos (Php9,500,000.00)**.

The Negotiation for said Project was conducted on **24 April 2017, 9:30AM** at the GBAC Conference Room, Level 2 Core G, GSIS Central Office, Financial Center, Pasay City. Attached is the Revised Terms of Reference (***Annex A***) based on the discussion/agreement during the Negotiation.

Upon completion of the Negotiation, the GSIS now invites bidders/suppliers to submit their Best Offers to the GBAC Secretariat, GSIS Bids and Awards Committee, Level 2 Core G, GSIS Central Office, Financial Center, Pasay City on or before **03 May 2017, 9:00AM.**

Bidders must submit the following documents enclosed in a **SEALED** envelope:

a) Letter of Conformity to be printed in the bidder's letterhead (***Annex B***)

b) Itemized Bid Form (***Annex C***)

c) Bid Security (***Annex D***)

d) Pertinent Certification from the DTI (This applies only if the Bidder claims preference as a Domestic Bidder)

The Opening of Best Offers will be on **03 May 2017, 9:30AM**, at the GBAC Conference Room, Level 2 Core G, GSIS Central Office, Financial Center, Pasay City.

The bidder/supplier with the Single or Lowest Calculated Quotation shall be required to submit additional documents stated in the Checklist of Additional Requirements (***Annex E***).

EDUARDO W. FERNANDEZ
Chairperson
GBAC for Infrastructure & Information Technology

ANNEX A
TERMS OF REFERENCE

SUPPLY, DELIVERY, CONFIGURATION AND IMPLEMENTATION OF THE ACTUARIAL SOLUTION

I. SCHEDULE OF REQUIREMENTS

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

Item No.	Description	Delivery (Weeks/Months)	Statement of Compliance
1	Issuance of Notice to Proceed	Within 15 calendar days from issuance of NOA by GBAC	
2	• Submission of Project Management Plan (PMP) • Delivery, Installation, and Configuration of Hardware and Software	Within 45 calendar days from issuance of NTP	
3	Acceptance of PMP and submission of required documents for payment of item no. 2	Within 20 calendar days from completion of item no. 2	
4	Development and User Acceptance Testing (UAT) Sign-off	Within 120 calendar days from completion of item no. 2	
5	Acceptance and sign-off of User's Acceptance Testing (UAT) and submission of required documents for payment of item no. 4	Within 20 calendar days from completion of item no. 4	
6	Deployment to Production	Within 30 calendar days from completion of item no. 4	
7	Acceptance of completed deployment to production and submission of required documents for payment of item no. 6	Within 20 calendar days from completion of item no. 6	
8	Issuance of Certificate of Completion and Final Acceptance	End of December 2017	
9	Submission of required documents for final payment.	Within 20 calendar days from completion of item no. 8	

II. TECHNICAL SPECIFICATIONS

I. BACKGROUND

A.1 PROJECT OVERVIEW/OBJECTIVES

The studies/reports being undertaken by the Actuary Office, particularly with respect to the Social Insurance Fund (SIF), entail processing of large data sets which require long-term projections, as well as computations that tend to be complex due to the set of assumptions that need to be considered, such as decrement rates (mortality, disability, separation and retirement) and the various demographic, economic and financial data that have to be considered.

With the software tools and hardware currently available in the Actuary Office, generation of such studies/reports usually take a lot of time. Currently, the only software available to the Actuary Office is Microsoft Excel. The existing version for the Statistical Analysis System (SAS), which is currently in use, is compatible with Windows XP only and cannot be adopted in newer versions of the operating system. Because of such limitations, our Office has been confined to working with the SAS tool that is functioning in two (2) PC desktops only.

For the most part, studies are done using Microsoft Excel as the software. However, working with Microsoft Excel only is tedious due to its limited data handling capabilities and computations that usually necessitate working with more than one spreadsheet. Appropriate software similar to SAS will make the computations more flexible when it comes to generating scenarios. It will provide larger data capacity that Excel limits. It can also provide a wider range of computational functions for analyses and reports.

Objectives:

By fourth quarter of 2017, the Actuary Office shall be equipped with an Actuarial Solution (hardware and software) that will lessen the time spent in preparing and generating reports.

This project also aims to:

1. Eliminate the manual importing and exporting of data to and from data warehouse/data mart and manual scrubbing of data that are tedious and time consuming;
2. Provide built-in formulas and functions for easy computation of values;
3. Improve data processing, computations, projections, sensitivity analysis, and predictive analysis;
4. Improve the integrity of the processed data and because of the more efficient processing of data, more time can be dedicated to the analysis of results; and
5. Finally, ensure that reports are done with a greater degree of accuracy, and that they are promptly generated and submitted.

This Terms of Reference is prepared to guide prospective Service Provider on the requirements of the project.

A.2 EXISTING BUSINESS PROCESS

Please refer to Annex 1 on the Existing Business Process.

A.3 PROPOSED BUSINESS PROCESS

Please refer to Annex 2 for the Proposed Business Process.

A.4 PROJECT SCOPE

The project shall cover the supply, delivery, installation, configuration, development, testing, and implementation of an Actuarial Solution, which includes but not limited to the following:

1. Project Management and Implementation
    a. Project Plan
    b. Detailed Requirements Analysis and Specification
    c. System Design
    d. Hardware and Software Licenses Delivery and Installation
    e. Database License, Commercial Full-Use Edition (can support at least 20 cores)
    f. System Configuration and Program Development
       Changes shall cover the following, if needed:
        - Application enhancements such as bug fixes
        - System Designs and Optimization
        - System Configuration
        - Program Development and Customization
    g. System Integration and Testing
    h. Implementation
2. Project Documentation
3. Installation, configuration, setup of the servers in the development, test, and production environment.
4. Functional, Technical and User Trainings
5. Warranty and Support Services

B. DETAILED TECHNICAL SPECIFICATIONS

The ***Actuarial Solution*** requirements are expressed in indicative and functional terms to guide the Service Provider in the provision of services that will ensure the overall system performance, interoperability, integration and information exchange.

The Service Provider shall setup, customize, configure, develop, test and implement the following requirements for the project:

B.1 INFORMATION SYSTEM/APPLICATION SYSTEM

The required solution may be a single or a group of software/tools that shall help the Actuary Office in preparing and generating Actuarial reports

1. Functional Requirements

a) **Actuarial Data Management** – the proposed software or tool should or should be:

1. Able to connect and extract data from the existing RDBMS and from different types of systems;
2. Able to import at least 20 million records in single execution;
3. Able to automate tasks such as copying or downloading files, sending email messages

in response to events, updating data, cleaning and mining data, and managing objects and data

4. Able to freeze data every quarter;
5. Have a clear and concise labelling and arrangement of input data;
6. Accept multiple numerical formats (e.g. long, integer, fraction, percent, etc.).
7. Provide a facility to define and implement validation, cleansing, and transformation rules;
8. Able to quickly implement validation, cleansing, and transformation rules;
9. Provide an easy-to-use tool or development environment for quickly creating and deploying simple to complex ETL jobs;
10. Allow for the creation of matching policies and perform data matching to identify and consolidate duplicate records for the same business entity;
11. Able to generate the following reports:
    (Refer to "**Annex 3**" for the format of the reports.)
    - For Active Membership
        1) Distribution by attained age, gender and monthly salary
        2) Distribution by monthly salary range and gender
        3) Distribution by attained age, gender and years of service
        4) Distribution by years of service, gender and monthly salary
        5) Distribution by Sector
        6) Distribution by years of service and sector
        7) Distribution by Handling Office/Functional Group
        8) Distribution by Type of Employment
        9) Distribution by Type of Membership and Gender
    - For Old-age pensioners
        1) Distribution by attained age, gender and Basic Monthly Pension (BMP)
        2) Distribution by age at retirement and gender
    - For Disability pensioners
        1) Distribution by attained age, gender and BMP
        2) Distribution by age at retirement and gender
    - For Basic Survivorship pensioners
        1) Distribution by attained age, gender and BMP
    - For Dependent pensioners
        1) Distribution by attained age, gender and BMP

12. The output data should have the options to be presented in charts or graphs.

Refer to **Annex 4 for SIF Data Validation Process

b) **Fund Assessment** – the proposed software/application should be customized to support the SIF Assessment Model and should have the following functionalities:

    1. Provide a facility to migrate/store the existing reference data to a database and allow users to maintain the stored reference data through a Graphical User Interface (GUI);
    2. Able to compute/process the following data input:
        - ***Assumption data input*** for a 75-year projection period
            - Required demographic and economic data input:
                - Survivorship factors
                - Percentage of Periods with Paid Premium (PPP) to Total Length of Service (TLS)
                - Average Monthly Compensation (AMC) factor based on either PPP or

TLS
- Inflation rate
- Wage increase
- Pension increase
- Funeral benefit

- Actuarial standard tables such as the following:
  - Service table - the conversion of the table with flexible factors should also be handled by the solution;
  - Mortality table
- Required financial data input:
  - Yield rate (can be single or multiple)
  - Administrative and operating expense loading
  - Fund beginning
  - Financial reserves
  - Contribution receipt factors (receivables and current)
  - Investment receipts factors (receivables and current)
  - Claims disbursement factors
  - Collection efficiency

  The adjustment of the financial data input should be automatically and easily reflected in the cash flow without running the whole program/ solution.

- ***Seriatim or data listing input*** from the database or from comma separated-value or excel file format
- ***Distribution data input*** which are in excel file format
- ***New entrants data input*** - the software/application should be able to compute the projections for the new entrants data input with the use of current active membership data, normal distribution, gamma distribution, service table and other trend lines ***as processed in the current Assessment.***
- *The corresponding equation of the trend line should also be generated.*
- ***Additional claims input*** in excel file format can be added easily in any projection year period.
- ***Additional input data in the GUI.*** The following are the parameters in the Assessment program that should also be treated as input data
  - Average Monthly Compensation (AMC) formula
  - Basic Monthly Pension (BMP) formula
  - Five (5) year waiting period for pension increase and cash gift
  - Optional and mandatory retirement age
  - Cash gift options
  - Population capping in projection of active members
  - Discount rate

3. Should be able to produce the following outputs:
   - Main output
     - Cash flow
       - Composed of the following cash flow tables – cash receipts and disbursement cash flow projections and the income and expense cash flow projections.
       - Shows the following key results:
         - Year claims exceed contributions
         - Year expense exceed income
         - Fund life
     - Actuarial Estimates/Indicators
     - Table of Claims

- The projected claims are presented in a table distributed by projection year, type, number and amount
        - Also shows the total and present value of claims using a ***discount rate*** (indicated in the additional input)
    - Summary Table per Year
        - Shows the summary of claims per year.
        - The table is a distribution of claims by type, then drill down on 1st and 2nd degree of claims classification.
- Detailed output
    - Output of each module in the current Assessment
    - Individual module outputs in terms of projected numbers and amounts for the whole 75-year projection period of the following:
        - Contributions
        - Disability benefits
        - Death benefits
        - Old-age retirement and lump sum benefits
        - Separation benefits for separated members with less than 15 TLS and otherwise
        - Survivorship benefits
        - Dependent benefits
        - Cash gift
        - Milestone benefits
        - Withdrawal benefits
        - Death benefits (from Life Insurance)
        - Other benefits

Refer to **Annex 5 for Fund Assessment Flowchart

The Detailed Process Flowcharts and Business Rules shall be provided upon issuance of NTP.

c) **Basic Features** - in addition to the abovementioned functionalities, both Database Management and Fund Assessment software/applications should also have these basic features:

1. The software/applications should not require programming knowledge;
2. Able to import data from the existing spreadsheet file and flat file;
3. Should provide a range of connection managers, including ODBC and OLEDB connection managers that can be used to connect to a wide range of common data sources (structured data or unstructured data);
4. Should provide an Excel-like data query tool to enable users to discover and combine data from various sources;
5. Should provide an Excel-like data analysis tool to enable users to slice and dice and visualize data
6. Allow user to view/retrieve more than 2 million rows of data using the existing spreadsheet tool;
7. Provides custom formula editor that enables user to perform data transformations;
8. Able to export output/processed data, tables/graphs and reports/dashboards to MS Excel, CSV, MS Word or PDF;
9. Provide a facility to log activities and transactions within the system. Audit log should include the user who performed the action that triggered the event, date and time when the event occurred, IP address of the device that was used, the activity

performed by the user, the object that was created by the activity, additional detail about the activity;
10. All built-in functions and analytical functions (such as "Data Table" and "Goal Seek" or its equivalent) in the existing spreadsheet tool should be available in the proposed software/applications;
11. Provide a report generation and query tool that will be used by the users to create their own and ad-hoc reports;

** Refer to **Annex 6** for Actuary Office's Existing Tools

d) **Software Licensing**

1. The Service Provider should provide perpetual licenses with the following breakdown:

    - Application – If the solution requires an application software that is not free, the number of licenses for production environment should be at least 20 named users (i.e., 15 end-users, 2 Admin, 1 ISO, 1 PSD, 1 Investments) for that application software.

    - Development and test environment licenses (1 for Dev and 1 for Admin) for the programming tool, if applicable

    - The database license for production environment should be commercial license core-based, at least standard edition or its equivalent and include ETL, OLAP, database administration tools, tuning tools and support for 128GB memory. The database should be of the same brand as the existing GSIS infrastructure with equal or higher versions.

      If the solution requires database license for non-production environment that is not free, the number of licenses should be two (2) users each environment for that database license.

2. The proposed solution software must appear at least once from 2015 to 2017 Gartner's Magic Quadrant for Business Intelligence and Analytics;
3. The Service Provider must provide licenses that may be necessary to complete the project;
4. The Service Provider must ensure it complies with licensing policies of the Original Equipment Manufacturer (OEM) of proposed hardware and software;
5. The Service Provider must provide development and test environment licenses for the development/programming tool, if applicable

e) **Volume Assumptions**

1. As of December 2015, the source data in Oracle database has 12 million records, which becomes 40 GB of data after processing using the existing tool.
2. There are at least 4 cycles of data processing/assessment and report generation per year.
3. The source data is assumed to be growing by 2.1 million records per year.
4. Historical data, which covers around 9 years of data, in form of CSV and MS Excel have to be uploaded, if needed. The total file size for 9 years' worth of data is 3,337 GB.
5. The estimated data growth for the next five (5) years (2017 – 2021) is as follows:

Year	# of Records of Source Data	Size of Data in existing tool (in GB)	# of Cycles per Year	Estimated Storage Capacity (in GB)
2017	16,200,000	54	4	216
2018	18,300,000	61	4	244
2019	19,400,000	68	4	272
2020	21,500,000	75	4	300
2021	23,600,000	82	4	328

f) The Service Provider shall propose a system architecture fit for the requirements of the Actuarial System considering the number of users, the regular volume of data and the data growth in the next five (5) years.

g) The Service Provider shall also perform unit testing of the application, facilitate Quality Assurance (QA) Testing and User Acceptance Testing (UAT) of the solution including the provision of the test scripts/test cases.

h) The Service Provider shall deploy the solution in the production environment and will provide monitoring for a period of at least one (1) month on system and data administration to ensure optimum performance of the system.

i) The Service Provider shall provide Knowledge Transfer to all the users with manual to guide GSIS on how to use the application. All meals for the training shall be shouldered by the Service Provider.

2. The Service Provider should recommend a system architectural design fit for the solution to work efficiently. The underlying infrastructure framework of GSIS should be taken into consideration in the conception of the design. It is expected that this system architectural design will ensure full compatibility, interoperability, will facilitate systems efficiency and result to an improved end user IT service experience. Consequently, the GSIS will evaluate and approve the Service Provider's final design before implementation.

2.1 Server Infrastructure, Database Start-up and Deployment

The Service Provider shall provide the Actuarial Solution and database server to run this project initially in test environment and later on in production environment. The Service Provider is expected to provide the necessary licenses to run the solution in the said environments.

The Service Provider shall perform the following tasks based on the approved architectural design in test and production environments:

a. Provide the server specifications required by the solution.
b. Provide database design to ensure effective and optimum system performance despite increase in transaction volume and number of concurrent users.
c. Provide the necessary licenses to run the Actuarial solution.
d. Install, configure, setup and tune Operating System, Databases, Application Servers and other related resources based on approved architectural design. GSIS System Administrator shall provide assistance, if needed.

e. Application system set-up and deployment procedures.
f. Technical Turn-over, Training, and Documentation procedures of installations, configuration, setup and tuning for system and database administrators.

B.2 HARDWARE SPECIFICATIONS

Minimum Technical Specifications for Production Environment

a. Server – One (1) unit:

Functional Requirement	Minimum Features/Characteristics
Processor	a. 2 x 10 total cores CISC based processors at 2.6 Ghz b. Total of two (2) physical processors installed
Cache Memory	30MB L3 cache memory
Main memory	a. 128GB total ECC DDR3 using 16GB or higher DIMMS memory modules b. Upgradeable to 256 GB
Internal storage devices	2 x 600GB 10K rpm SAS, hot-swappable
Fiber Channel (SAN connectivity)	2 x dual port 8 Gbit/sec HBA adapters
Network Interfaces	1 x dual port auto sensing 1/10Gb Ethernet adapter that can provide at least 8 logical NIC ports
Raid Controller	1 x hardware raid controller capable of raid 0 and 1
Power Supply	Redundant Power Supplies
Physical form factor	half-height blade server
Hyper threading	Active
Operating System	**Bundled with the server; with three (3) years warranty**

b. Storage – The GSIS shall provide Three (3) Terabytes of usable storage for the project.
c. Other Hardware Requirements:

- Blade servers must be compatible with the existing blade chassis of GSIS.
- The Service Provider is required to provide all necessary hardware, devices and peripherals required to connect all proposed hardware requirements to existing GSIS LAN and SAN. This includes:
  - FC cables
  - UTP cables
    - CAT 6
    - Blue
    - Combination of 2 and 3 meters
    - Factory crimped cable
  - Connectors (SFP's)

- The Service Provider must carry one and the same brand or manufacturer for all server requirements.

** Refer to **Annex 7** for GSIS IT Infrastructure Office Standards

B.3 KNOWLEDGE/TECHNOLOGY TRANSFER

The Service Provider shall provide the necessary comprehensive technology/ knowledge transfer which will cover the following:

1. Application
    - End-users training for fifteen (15) personnel from Actuarial Office and other functional groups that will provide them with the skills on how to use/operate the proposed solution.
    - Technical knowledge transfer for five (5) ITSG AMO personnel that will provide them with skills on the development platform used in the proposed solution.
    - Technical training for two (2) ITSG System Administrators that will provide them with skills and knowledge needed to successfully implement and administer the proposed software solution
2. Database
    - Technical training for two (2) ITSG personnel on ETL, OLAP, tuning and administration of the database.

B.4 TECHNICAL SUPPORT

a. The Service Provider shall provide procedure on support and problem escalation.
b. The Service Provider shall provide certified, qualified and experienced personnel to provide technical support during warranty period.
c. The Service Provider shall have a 24x7 helpdesk via phone and email support. The Service Provider shall provide response within 1-hour. Resolution time for system downtime is 24-hours;
d. The Service Provider shall provide a dedicated 8 x 5 technical onsite support two (2) months after the production implementation. (The team should be composed of at least three (3) personnel namely – Project Manager, DBA/BI Analyst and Developer.)
e. The Service Provider shall be able to provide on-site services in case GSIS require it during the maintenance period of the project;
f. Response time for hardware support must be within one (1) business hour for phone support; within eight (8) hours for onsite support in the GSIS Home Office.

C.1 PROJECT MANAGEMENT PLAN

The Service Provider shall be responsible for the different steps in project management. Actual development shall be done on GSIS premises.

1. *Project Plan – This involves project planning, system design, initiation and implementation.*

2. Application Enhancements/Bug Fixes - The main objective is to document application enhancements through bug fixes and optimization of program codes based on the recommendation during the duration of this project.

3. Systems Design - This involves the review and enhancement of the existing design, as the need arises, to include software specifications, database structure design, software architectural framework, system components specifications, implementation plan, network and hardware architectural design, integration plan and quality assurance and test plan.

4. Hardware and Software Licenses Delivery and Installation – This involves the actual delivery and installation of the hardware and software components of the project.

5. System Configuration and Program Customization - This involves modifying and configuring the system to fit the GSIS requirements.

6. System Integration and Testing - This would mean the integration of the different subsystems and system integration testing. The application system will undergo functional, performance (volumetric) and operational testing.

7. User Acceptance Testing - Prior to acceptance of the system, several rounds of user testing shall be conducted on a test environment. This will involve the actual users of the system. All incidental expenses arising from the conduct of the UAT shall be borne by the Service Provider.

8. Knowledge Transfer Training - The training will involve technical training for the applications, system administration and database administration who will be responsible in maintaining the systems.

9. Implementation and Deployment - This involves development of the software installation mechanism and installation of the software systems to test and production environment.

The Service Provider shall provide all the system configurations to GSIS. AND shall update the systems documentation as the need arises.

C.2 PROJECT MANAGEMENT METHODOLOGY

The Service Provider shall provide the following plans to ensure that service delivery is according to set standard in application systems implementation. GSIS reserves the right to review and approve these plans. The Service Provider is also required to submit weekly status reports showing progress against project plan.

a. Project Management Plan
b. Test Plan
c. Implementation Plan
d. Training Plan

C.3 PROFESSIONAL SERVICES

The Service Provider shall provide **Professional Services**:

1. **Project Manager** - The Project Manager should have at **least five (5) years experience in Project Management** and must have implemented a Business Intelligence, Data warehouse or ETL/OLAP project. The Project Manager should be

dedicated up-to-the-end of the project.

2. **At least three (3) Technical Experts** - The Service Provider shall deploy the following Technical Experts:
   - Business Intelligence (BI) Analyst – at least one (1) with three (3) years of experience in implementing Data Management and Business Analytics tools
   - Quality Assurance Testers – with at least one (1) year experience
   - Documentation Analyst - with at least one (1) year experience

The service provider must submit the resume of the above-cited service personnel during project implementation. GSIS reserves the right to interview, approve and change personnel assignment.

C.4 PROJECT DOCUMENTATION REQUIREMENTS

The Service Provider shall update the existing detailed-business requirements with the applicable GSIS Functional Group. The following are the standard templates that should be submitted for review and approval of GSIS, if applicable:

1. Project Plan
   a. Assumption
   b. System Limitation
   c. System Architecture
   d. Project Scope and WBS
   e. Support/Maintenance
2. Requirements Specification
3. Consolidated User Requirement/Request for System Update (CUR/RSU, *subsequent changes to the requirements)*
   a. User Maintenance
   b. Function and Tables
   c. Projected DB Growth (for the next 5 years)
4. Functional Design
5. System Architecture
6. Technical Design Documentation
   a. Detailed Design Documents
   b. Over-all Architecture (hardware, software, network, security, etc.)
   c. Entity Relationship Diagram (ERD) -Database Schema, tables and fields (data dictionary), table relationships, properties and description
   d. Technical specifications, program listings with process flow, parameters and

description

e. List of services, interfaces and linkages with description
f. List of APIs, plug ins, libraries and descriptions
g. Database Volume Projection
h. Technical User Guide
i. Source code

7. Service Provider's Internal Unit testing Results
8. Test Plan
9. Test Scripts/Test Cases
10. User Guide and Manual
11. Operations Manual
12. Software and Product Warranty Support. Hardcopy and softcopy in pdf format shall be provided.

All these documents must be submitted prior to the issuance of the Certificate of Acceptance and Completion. Moreover, documentation of upgrades and fixes during the warranty period shall also be provided.

C.5 SERVICE PROVIDER RESPONSIBILITIES

1. The Service Provider must have qualified and experienced IT personnel who will provide services in the enhancement, optimization, bug fixes and implementation.
2. The Service Provider should provide all necessary equipment such as computers, printers, peripherals and office supplies for the use of their project team during the project duration.
3. The Service Provider shall ensure that all files and programs are backed-up.
4. The Service Provider's project team is expected to conform to GSIS' office rules and regulations.
5. The Service Provider shall ensure the absolute confidentiality of all information, documents or records acquired in the course of or as an incident to this Project. It shall not use or disclose to any person, firm or corporation any information hereto acquired for its benefit or to the detriment of GSIS.

C.6 SITE PREPARATION

a. The Service Provider shall provide all necessary workstations, printers, peripherals, computer and office supplies for the use of their project team during the project duration.
b. The Service Provider shall ensure that all files and programs are backed-up.
c. The Service Provider's project team is expected to conform to GSIS' office rules and regulations.
d. The Service Provider shall ensure the absolute confidentiality of all information, documents or records acquired in the course of or as an incident to this Project. It shall not use or disclose to any person, firm or corporation any information hereto acquired for its benefit or to the detriment of GSIS.

OTHER REQUIREMENTS
The Service Provider must be an authorized distributor/reseller/partner of the proposed software license at the time of bid opening.
The bidder/supplier should have at least one (1) reference site where an IT solution project (i.e., software or IT services) was implemented within the last five (5) years. A reference site should be an entity which is either a client or where the bidder/supplier has been an implementation partner with respect to said IT solution project. GSIS reserves the right to call or visit the said site.

The following Annexes shall be issued to the bidders/suppliers who attended the Negotiation and to other bidders/suppliers who will express interest to submit Best Offers for the Project.

- Annex 1 Existing Business Process
- Annex 2 Proposed Business Process
- Annex 3 Format of the Reports
- Annex 4 SIF Data Validation Process
- Annex 5 Fund Assessment Flowchart
- Annex 6 Actuary Office's Existing Tools
- Annex 7 GSIS IT-Infrastructure Office Standards

Sample data shall be provided to the bidder/supplier upon its submission of a Non-Disclosure Agreement during the POC. The bidder must coordinate with the end-user unit (ITSG) regarding the signing of a Non-Disclosure Agreement.

III. PAYMENT TERMS

Payment shall be made upon completion and acceptance of every system enhancement based on the Payment Schedule provided below:

20%	• Upon submission of Project Management Plan • Upon Delivery, Installation, and Configuration of the Solution (Hardware and Software)
15%	• Upon completion of Development of Data Management and Fund Assessment Models • Upon delivery of 15 Reports
20%	Upon acceptance and sign-off of User's Acceptance Testing (UAT) by GSIS representatives
25%	Upon deployment to production
20%	Upon issuance of Certificate of Completion and Acceptance as signed by GSIS representatives

Payment shall be subject to applicable taxes.

IV. WARRANTY

In order to assure that manufacturing defects shall be corrected by the Supplier, a warranty shall be required from the Supplier for a period of **five (5) years for hardware and three (3) years for software**. The obligation for the warranty shall be covered by, at the Supplier's option, either retention money in an amount equivalent to **five (5%)** of every progress payment, or a special bank guarantee equivalent to **five (5%)** of the total Contract Price. The said amounts shall only be released after the lapse of the warranty period.

In addition, warranty services shall likewise include **Technical Support** as defined Technical Specifications.

All warranty obligations shall commence upon Completion and Final Acceptance of the Project.

V. PROOF OF CONCEPT (POC)

The bidder/supplier with Lowest Calculated Quotation shall conduct a proof of concept to demonstrate its solution. The bidder/supplier shall set up the POC environment within GSIS Head Office and is responsible for bringing all equipment needed for the POC. Refer to Annexes 8-1, 8-2 and 8-3 for the POC Criteria and POC-related requirements.

The specifications of the hardware/equipment to be used in the POC must be the same or lower with the specifications of the bidder/supplier's proposed hardware/equipment.

VI. REFERENCE SITE

The bidder/supplier should have at least one (1) reference site where an IT solution project (i.e., software or IT services) was implemented within the last five (5) years. A reference site should be an entity which is either a client or where the bidder/supplier has been an implementation partner with respect to said IT solution project. GSIS reserves the right to call or visit the said site.

ANNEX 8-1

POC Criteria

The bidder/supplier shall demonstrate and test their solution in test environment using GSIS Active Membership data as of December 31, 2016.

	Scenario	Expected Result/s
1.1	Ease of use.	The POC requirements should be performed using built-in functions and drag and drop features of the software/tool. Minimal programming or scripting may only be allowed for the computation of salary increment and generation of trend line and its equation.
1.2	Import the data from 12 CSV files to Database Management tool.	The software/tool should be able to import and aggregate 12 CSV files into 1 file or table. The aggregated total number of rows should equal the sum of the number of rows of the 12 CSV files. Maximum run time: 20 minutes Output will be counter-checked vis-à-vis EUU's result.
1.3	Implement validation, cleansing, and transformation rules.	The software/tool should automatically and quickly detect the errors using the validation, cleansing, and transformation rules provided for this scenario: - Convert Date of Birth and Issue Date fields to date format MM/DD/YYYY - Remove rows with Issue Date after December 31, 2016 and show these in a separate table. Indicate the number of rows removed. - If Agency Type = 'GSIS', then set the value to 'GFI'. - If Agency Type = 'Individuals' or 'Private Entities', then set the value to 'DepEd' - Create a table showing the number of rows per Agency Type with the following format:

<table>
<tr>
<td></td>
<td></td>
<td>
<table>
<tr><th>Agency Type</th><th>Count</th></tr>
<tr><td>...</td><td></td></tr>
<tr><td>...</td><td></td></tr>
<tr><td>...</td><td></td></tr>
<tr><td>Total</td><td></td></tr>
</table>
Maximum run time: 12 minutes
Output will be counter-checked vis-à-vis EUU's result.
</td>
</tr>
<tr>
<td>1.4</td>
<td>Perform basic functions</td>
<td>
The software/tool should be able to perform the following functions:

Sort/Filter

Sort by BP Number and by Issue Date
Filter records where Type of Policy = 'LEP' and Plan Type <> 'PE70'. Copy the filtered records to a new table (LEP_Not_PE70)
Maximum run time: 15 minutes

Arithmetic

Compute for Issue Age and create an output table with the following format:
<table>
<tr><th>Issue Age</th><th>Count</th></tr>
<tr><td>...</td><td></td></tr>
<tr><td>...</td><td></td></tr>
<tr><td>Total</td><td></td></tr>
</table>

Compute for Attained Age and create an output table with the following format:

</td>
</tr>
</table>

<table>
<tr>
<td></td>
<td></td>
<td>
<table>
<tr><th>Attained Age</th><th>Count</th></tr>
<tr><td>…</td><td></td></tr>
<tr><td>…</td><td></td></tr>
<tr><td>Total</td><td></td></tr>
</table>

Compute the salary increment for each movement of monthly salary per BP number
Maximum run time: 30 minutes

Please see attached for the formulas on issue age, attained age and salary increment (POC Formulas and Computations).
- Link/Join Tables

Join Amount of Insurance (AOI) factor table with table LEP_Not_PE70 using Plan Type and Issue Age to get the corresponding AOI factor to be shown in a new column
Compute AOI by multiplying the AOI factor with the corresponding Salary Increment
Maximum run time: 12 minutes

- Summation

Show the Total AOI
Maximum run time: 2 minutes

Outputs will be counter-checked vis-à-vis EUU’s results.
</td>
</tr>
<tr>
<td>1.5</td>
<td>Create Unique_LEP_Not_PE70 table containing the following:</td>
<td>The software/tool should be able to create Unique_LEP_not_PE70 table.</td>
</tr>
</table>

	• Distinct BP Number • Attained Age • Gender • Latest Monthly Salary • Total AOI per BP Number	Maximum run time: 5 minutes Output will be counter-checked vis-à-vis EUU's result.
1.6	Generate output data in item 1.5 to CSV file and MS Excel file	The software/tool should be able to automatically generate the output data in item 1.5 to CSV file and MS Excel file. Output will be counter-checked vis-à-vis EUU's results.
1.7	Generate "Distribution of Unique_LEP_Not_PE70 by Attained Age, Gender, Monthly Salary and Amount of Insurance" report	The software/tool should be able to generate "Distribution of Unique_LEP_Not_PE70 by Attained Age, Gender, Monthly Salary and Amount of Insurance" report. Please see attached format *(POC Report Format Item 1.7).* Output will be counter-checked vis-à-vis EUU's result.
1.8	Generation of the trend line using the data provided by EUU.	The software/ tool should be able to generate the following: – line graph – corresponding trend line (usually a 3-degree polynomial) – the equation of the trend line Output will be counter-checked vis-à-vis EUU's results.

Notes:

1. After the POC, all data shall be deleted from the server.

ANNEX 8-2

POC Formulas and Computations

1. Issue Age is the age nearest birthday at the time of issuance of the policy.

   Formula:
   ROUND(YEARFRAC(Issue Date, Date of Birth, 1), 0)

   Example:
   Date of Birth : February 21, 1956
   Issue Date : July 17, 2001
   Issue Age : 45

2. Attained Age is the age nearest birthday at the time of valuation (date of reckoning).

   Formula:
   ROUND(YEARFRAC(Valuation Date, Date of Birth,1), 0)

   Example:
   Date of Birth : February 21, 1956
   Valuation Date : December 31, 2016
   Attained Age : 61

3. Monthly Salary Increment per BP Number

   Formula:
   Sort data by BP Number and Issue Date (ascending)
   - For each BP Number, for the earliest Issue Date,
     Monthly Salary Increment = Monthly Salary
   - For the succeeding lines for the same BP Number,
     Monthly Salary Increment = Monthly Salary_t – Monthly Salary_{t-1}

   where t = 1... total number of increments per BP Number

ANNEX 8-3

POC Report Format of Item 1.7

DISTRIBUTION OF UNIQUE_LEP_NOT_PE70
BY ATTAINED AGE, GENDER, MONTHLY SALARY AND AMOUNT OF INSURANCE

Attained Age Range	Male			Female			Total		
	Number	Average Monthly Salary	Average Amount of Insurance	Number	Average Monthly Salary	Average Amount of Insurance	Number	Average Monthly Salary	Average Amount of Insurance
Below 20									
20 to 24									
25 to 29									
30 to 34									
35 to 39									
40 to 44									
45 to 49									
50 to 54									
55 to 59									
60 to 64									
65 and above									
Total									

ANNEX B

[Insert Letterhead of the Prospective Bidder here]

LETTER OF CONFORMITY

Title of the Project: *[Title]*

To: *GSIS Bids and Awards Committee*
Government Service Insurance System
GSIS Central Office, Financial Center, Pasay City

This is to inform the *GSIS Bids and Awards Committee* that our company, ____, located at ______________________________ conforms to the Terms of Reference as enumerated and specified in the Request for Submission of Best Offers and in Bid Bulletin(s) issued.

(Signature Over Printed Name)

____
Authorized Representative

ANNEX C

Itemized Bid Form
[re: Supply, Delivery, Configuration and Implementation of the Actuarial Solution]

Name of Bidder/Supplier _______________

1	2	3	4	5	6	7	8	9	10
Item	Description	Country of origin	Quantity	Unit price EXW per item	Cost of local labor, raw material, and component[2]	Total price EXW per item (cols. 4 x 5)	Unit prices per item final destination and unit price of other incidental services	Sales and other taxes payable per item if Contract is awarded	Total Price delivered Final Destination (col 8 + col. 9) x col. 4
1	Software Licenses	NA	1 Lot	NA	NA	NA			
2	3 Years Software Warranty	NA	1 Lot	NA	NA	NA			
3	Hardware	NA	1 Lot	NA	NA	NA			
4	5 Years Hardware Warranty	NA	1 Lot	NA	NA	NA			
5	Services (Calendar Days)	NA	1 Lot	NA	NA	NA			
6	Training (20 Personnel)	NA	1 Lot	NA	NA	NA			
	TOTAL	NA	NA	NA	NA	NA			

(Signature Over Printed Name)

____
Authorized Representative

ANNEX D
BID SECURITY

The bidder/supplier shall submit a **Bid Securing Declaration** using the form prescribed in the Notice of Conduct of Negotiated Procurement/Request for Submission of Best Offers **or** any of the following form of Bid Security:

a. **Php190,000.00**, equivalent to 2% of the ABC, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit;

   Bidders/Suppliers who opt to submit a bid security in the form of cash and/or cashier's/manager's check shall deposit the said bid security to the GSIS Cashier, in coordination with the GBAC Secretariat, prior to the submission of bids. The Official Receipt issued by the GSIS Cashier shall be submitted as part of their Sealed Envelopes containing their Best Offers.

b. **Php475,000.00**, equivalent to 5% of the ABC, if bid security is in Surety Bond. A valid certification from the Insurance Commission must attached/submitted.

The bid security shall be valid for 120 days from opening of bids/offers.

Bid Securing Declaration Form

REPUBLIC OF THE PHILIPPINES)
CITY OF ______________________) S.S.

x---x

BID-SECURING DECLARATION
Title of the Project:____________________________________

To: *[Insert name and address of the Procuring Entity]*

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids/offers must be supported by a Bid Security, which may be in the form of a Bid-Securing Declaration.

2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1 (b), 34.2, 40.1 and 69.1, except 69.1(f) of the IRR of RA 9184; without prejudice to other legal action the government may undertake.

3. I/We understand that this Bid-Securing Declaration shall cease to be valid on the following circumstances:

(a) Upon expiration of the bid validity period, or any extension thereof pursuant to your request;

(b) I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right;

(c) I am/we are declared as the bidder with the Lowest Calculated and Responsive Bid/Highest Rated and Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of *[month] [year]* at *[place of execution]*.

[Insert NAME OF BIDDER'S AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]
Affiant

SUBSCRIBED AND SWORN to before me this __ day of *[month] [year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her *[insert type of government identification card used]*, with his/her photograph and signature appearing thereon, with no. ______ and his/her Community Tax Certificate No. _______ issued on ______ at ______. Witness my hand and seal this ___ day of *[month] [year]*.

NAME OF NOTARY PUBLIC
Serial No. of Commission __________
Notary Public for ______ until _______
Roll of Attorneys No. _____
PTR No. __, *[date issued],[place issued]*
IBP No. __, *[date issued], [place issued]*

Doc. No. ___
Page No. ___
Book No. ___
Series of __

ANNEX E
CHECKLIST OF ADDITIONAL REQUIREMENTS

Legal Documents

1. Appropriate Registration Certificate from the:

➢ Securities and Exchange Commission

1. **For Corporation**
Certificate of Registration; or Certificate of Incorporation; or Certificate of Filing of Amended Articles of Incorporation

2. **For Partnership:**
Certificate of Registration; or Certificate of Partnership; or Certificate of Filing of Amended Articles of Partnership

➢ Department of Trade and Industry (DTI), for sole proprietorship

➢ Cooperative Development Authority (CDA), for cooperatives

2. Business Permit/Mayor's Permit for CY 2017 issued by the city or municipality where the principal place of business of the prospective bidder/supplier is located

3. Valid Tax Clearance per Executive Order 398 (s. 2005), as finally reviewed and approved by the BIR.

Note: In case of Joint Venture, all parties to the Joint Venture shall submit the above-cited documents.

Technical Documents

4. Valid PhilGEPS Registration Certificate. In case of Joint Venture, all parties to the Joint Venture shall submit the said document.

5. Statement of **Completed** Government and/or Private Contract or Contracts similar to the contract to be bid, within the past five (5) years prior to the deadline for the submission and receipt of bids/quotations/offers. Similar project/contract refers to IT solution project (*i.e.,* software or IT services).

Financial Document

6. Audited financial statements for CY 2016, stamped "received" by the Bureau of Internal Revenue (BIR) or its duly accredited and authorized institutions.

7. Valid Joint Venture Agreement

Other Technical Documents

8. Omnibus Sworn Statement in accordance with Section 25.2 of the RIRR of RA 9184 and using the form prescribed in the Notice of Conduct of Negotiated Procurement/Request for Submission of Best Offers. Submit a Notarized Secretary's Certificate, *if required/applicable*. In case of sole proprietorship, submit a special power of attorney if the proprietor/owner has assigned/appointed a person to, on his/her behalf, represent the company in the bidding/Negotiated Procurement of GSIS and sign all documents pertaining to the project to be bid.

9. If the bidder/supplier is a foreign entity, Certification from the relevant office from the bidder's country of origin stating that laws or regulations of said country grant reciprocal rights or privileges to citizens, corporations or associations of the Philippines.

10. Datasheet of the software licenses (application and database) to be supplied. This includes brochures, manuals, or other documentary references which will provide substantial information of the product to be supplied.

Omnibus Sworn Statement

REPUBLIC OF THE PHILIPPINES)
CITY/MUNICIPALITY OF ______) S.S.

AFFIDAVIT

I, *[Name of Affiant]*, of legal age, *[Civil Status]*, *[Nationality]*, and residing at *[Address of Affiant]*, after having been duly sworn in accordance with law, do hereby depose and state that:

1. ***Select one, delete the other:***

   If a sole proprietorship: I am the sole proprietor of *[Name of Bidder]* with office address at *[address of Bidder]*;

   If a partnership, corporation, cooperative, or joint venture: I am the duly authorized and designated representative of *[Name of Bidder]* with office address at *[address of Bidder]*;

2. ***Select one, delete the other:***

   If a sole proprietorship: As the owner and sole proprietor of *[Name of Bidder]*, I have full power and authority to do, execute and perform any and all acts necessary to represent it in the bidding/Negotiated Procurement for *[Name of the Project]* of the *[Name of the Procuring Entity]*;

   If a partnership, corporation, cooperative, or joint venture: I am granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the *[Name of Bidder]* in the bidding/Negotiated Procurement as shown in the attached *[state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate issued by the corporation or the members of the joint venture)]*;

3. *[Name of Bidder]* is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board;

4. Each of the documents submitted in satisfaction of the bidding/Negotiated Procurement requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. *[Name of Bidder]* is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. ***Select one, delete the rest:***

If a sole proprietorship: I am not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

If a partnership or cooperative: None of the officers and members of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

If a corporation or joint venture: None of the officers, directors, and controlling stockholders of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. *[Name of Bidder]* complies with existing labor laws and standards;

8. *[Name of Bidder]* is aware of and has undertaken the following responsibilities as a Bidder:

   a) Carefully examine all of the Bidding Documents/documents for Negotiated Procurement;
   b) Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract;
   c) Made an estimate of the facilities available and needed for the contract to be bid, if any; and
   d) Inquire or secure Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*; and

9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

IN WITNESS WHEREOF, I have hereunto set my hand this __ day of ___, 20__ at ___________, Philippines.

____

[Bidder's Representative/Authorized Signatory]

[JURAT / To be Notarized)

SAMPLE FORM

STATEMENT OF COMPLETED GOVERNMENT AND/OR PRIVATE CONTRACT OR CONTRACTS SIMILAR TO THE CONTRACT TO BE BID, WITHIN THE PAST _____ YEARS PRIOR TO THE DEADLINE FOR THE SUBMISSION AND RECEIPT OF BIDS/QUOTATIONS/OFFERS

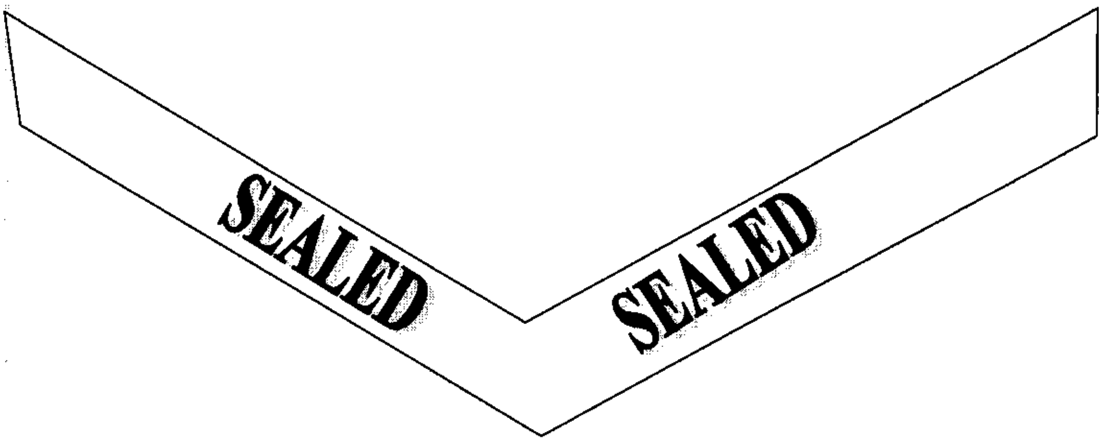
Name of the contract (including the name/s and contact number of the customer's authorized representative/s)	**Date of the contract**	**Nature of Work / Kinds of Goods**	**Amount of contract and value of outstanding contracts**	**Date of Completion**	**Copy of end user's acceptance or official receipt(s) issued for the contract, if completed**
SINGLE LARGEST COMPLETED SIMILAR CONTRACT *(Cite the largest among the contracts to be listed in this Statement)*					
OTHER COMPLETED SIMILAR CONTRACTS					

(Signature over Printed Name)

____

Authorized Representative

SEALING AND MARKING



Name of the Project: ________________________________

Name, Address & Contact Details of the Bidder: ________________________________

____

____

Place of Submission: GBAC Secretariat, GSIS Bids and Awards Committee
Level 2 Core G, GSIS Central Office, Financial Center
Pasay City

Date of Submission: ____________________

Note: The bidder's envelope containing the required documents must be properly <u>SEALED</u>.

The bidder is also requested to submit another sealed envelope containing the required documents.