



Proposal Response to:
Statement of Work For
Data Governance and Data Quality
Management Implementation



Information Services Division
October 10, 2017

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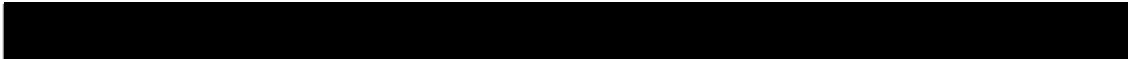
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I. INTRODUCTION/BACKGROUND

The Employees Retirement System of Texas (ERS) was founded in 1947 and today administers retirement, health insurance, and related benefits for State of Texas employees and retirees. In total, there are more than half a million lives participating in the programs ERS administers. These benefits are paid for by the State of Texas (and, ultimately, Texas taxpayers) and by employees and retirees, who contribute to their retirement savings and health coverage. As administrator of the programs, ERS has a mission to support the state workforce by offering competitive benefits at a reasonable cost.

The Information Systems Division (IS) of ERS is responsible for system administration of many systems which maintain data for internal and external users. ERS has self-service access to the Benefits and Pension Administration system for members to maintain their own personal data; agencies across the state maintain their employee's data through online access to the Benefits Administration system; and some vendors have limited access to view data in the Benefits Administration system; ERS exchanges data with internal systems and external parties including other agencies and vendors. The number of files processed are estimated at approximately 60,000 annually. The files are a mixture of inbound files that are integrated into the core business systems listed below and outbound files to other vendors and governmental agencies.

Currently ERS has no formal data governance around data quality. We have inconsistent practices exercised to varying degrees across data sets and business areas. Data is often managed in silos throughout the organization resulting in multiple definitions for data and different standards creating difficulty in reporting and analysis.

In terms of Data Quality, ERS has a limited data quality program with no formal governance. Agency level leadership and senior IT leadership recognizes the importance of data quality. The existing applications do not have adequate user interface edits in place at the point of data entry to prevent 'bad' data being saved to the database. The agency is just beginning to work on file management as it relates to data quality. Each of these efforts represent cultural changes that a formal approach could help expedite and ensure long-term success.

II. STATEMENT OF WORK SUMMARY

ERS seeks to secure services of an experienced practitioner(s) with recognized capabilities in the Data Management industry with specific experience in Data Quality Management and Data Governance in the business domain of the ERS. ERS desires to implement a pragmatic, scalable Data Quality Management function and Data Governance framework. The ultimate goal is to have an enterprise wide program based on best practices for a governmental agency with ERS' mission and regulatory requirements.

For the purposes of this Statement of Work (SOW) the core business systems include the following:

1. The PeopleSoft Human Resource Management System (HRMS) ERP including the following modules:
 - a. Human Resources
 - b. Benefits Administration
 - c. Pension Administration
 - d. Retiree Payroll
2. The PeopleSoft Financials and Supply Chain Management System ERP including the following modules:
 - a. Accounts Payable
 - b. Accounts Receivable
 - c. General Ledger
 - d. Purchase Orders
3. The PeopleSoft ERP's are on separate Oracle databases with AIX operating systems
4. Two data warehouses sourced from the PeopleSoft HRMS system and outside vendor HIPAA data

5. The data warehouses are on SQL Server 2012 using the MS BI Stack, including a multidimensional OLAP cube in each data warehouse.

The high-level scope of work for this project includes the following:

1. Analyzing the data in the core systems to determine the health of the data and providing metrics to allow decision-making
2. Establish best practices around DQM and DG that are appropriate for a governmental agency with ERS' mission and regulatory requirements
3. Implement the frameworks with ERS staff

III. ACCEPTANCE CRITERIA AND PROJECT DELIVERABLES

The acceptance of all deliverables will reside with ERS's Chief Information Officer (CIO). The Vendor will work with the Data Management and Support team lead, as well as others across the agency in order to ensure the project is delivered properly and in a timely manner. In order for a deliverable to be complete; knowledge must have been transferred to ERS staff; the vendor must have provided their report/presentation for review and approval, and the CIO (or his designee) will either give his/her approval to consider it complete or he/she will reply to the Vendor, in writing, advising what tasks must still be completed.

At project completion, the Vendor will provide their project closure report and task checklist to the CIO or his designee. The CIO will determine if the vendor has completed all assigned tasks. Any discrepancies involving completion of project tasks or disagreement between ERS and Vendor will be managed in weekly project status meetings.

IV. PROJECT SCOPE AND DELIVERABLES

Overview

The scope of this project is to identify and close data errors and inconsistencies while assisting ERS to implement a data governance framework and the data quality function around member level data and financials for the Benefits Administration and Pension Administration areas of ERS business. The deliverables and tasks described below are required for successful completion of this project.

Areas of ERS business considered out of scope are:

1. Any investment system(s) and related data/processes
2. Financials data unrelated to Benefits Administration and Pension Administration

Deliverable 1 consists of analysis of the data to determine inconsistencies related to expectations set by business rules and data usage; creation of metrics; establishment and implementation of a Data Governance (DG) framework around the data management function of Data Quality Management (DQM). ERS staff will assist and the frameworks must be scalable. The following is a list of requirements for this deliverable:

1. Analyze the core data in the PeopleSoft HRMS system to determine inconsistencies. The tasks to be included are:
 - a. Define DQM Requirements
 - b. Profile, Analyze, and Assess Data Quality
 - c. Define Data Quality Business Rules
 - d. Test and Validate Data Quality Requirements
2. Produce metrics to assist Vendor and ERS in determining the priorities and reporting project progress before moving forward. The metrics must report on a sustained state of improvement, as well.
3. Work with ERS staff to establish and document the DG frameworks below before moving forward. Train staff and conduct knowledge transfer on the entire framework, including but not limited to how to perform the analysis on the core data. The frameworks must accommodate scaling throughout the rest of the agency. See Appendix B for a list of the tasks in the frameworks as recommended by DAMA International Data Management Body of Knowledge.
4. Prepare an Implementation Plan for implementing the data governance framework
5. Assist ERS staff with implementing the data governance framework

Deliverable 2 will consist of establishing and implementing a DQM framework based on the metrics created in Deliverable 1 and Data Governance framework from Deliverable 1. The Vendor will lead this deliverable while the ERS staff will assist. Priorities will be determined by ERS. As an example, if the metrics identified inbound file management as problematic and the agency deems that metric to be the highest strategic value then this deliverable will be geared towards file management. If the metrics identified gaps in the user interface (UI) for certain business processes and the agency deems that metric to be the highest strategic value then this deliverable will be geared towards the UI and associated business process.

1. Analyze the processes around the core data to identify opportunities to add preventative measures to control key data elements
2. Work with ERS staff to establish and document the DQM framework below before moving forward. Train staff on the data quality function. Conduct knowledge transfer on the entire framework, including but not limited to how to perform the analysis on the core data. The framework must accommodate scaling throughout the rest of the agency. See Appendix C for a list of the tasks in the DQM framework as recommended by DAMA International Data Management Body of Knowledge
3. Prepare an Implementation Plan for implementing the DQM framework
4. Assist ERS staff with implementing the data quality function

Deliverable 3 will consist of the Vendor coaching ERS staff in the implementation of the next most strategic area based on metrics produced in Deliverable 1. ERS staff will be the primary leader of this deliverable. The frameworks and functions from Deliverables 1 (DG) and 2 (DQM) will be used and, for scalability purposes, will be adjusted as necessary. The goal of Deliverable 3 is to ensure that ERS staff are able to continue to expand the DQM and DG footprint across the agency.

V. SCHEDULE/MILESTONES

The below list consists of milestones identified for the Data Governance and Data Quality Management Implementation project:

Bid Deadlines (also see Section XII)

Item	Date
SOW release	October 10, 2017
Vendor Q/A telephone call	November 6, 2017
Deadline for questions from vendors	November 8, 2017
Answers submitted to vendors	November 15, 2017
SOW submission deadline	December 20, 2017
Vendor selection review begins	January 2, 2018
Vendor selection	January 29, 2018

Project Milestones

Item	Delivery Date
Data profiling and analysis	8/13/2018
Creation of Metrics	10/1/2018
Establish DG Framework	10/22/2018
Implement DG Framework	11/19/2018
Establish DQM Framework	1/7/2019
Implement DQM Framework	1/28/2019
Scale and Implement next Deliverable of DG/DQM	4/29/2019
Project Close – including all key deliverables and all acceptance criteria in Section III	5/6/2019
Project Completion Review	5/13/2019
Project Closure and sign-off	5/20/2019

VI. OTHER REQUIREMENTS

1. ERS will provide Vendor all information on current environment.
2. ERS will supply workstation hardware, operating systems, and MS Office software to connect to ERS systems. As ERS is a secure environment, Vendor systems are not allowed on the ERS production network.
3. ERS will provide appropriate credentials to a database environment to create the metrics required
4. ERS will make available authorized personnel during the project with a working knowledge of core business environments. ERS staff will answer questions, clarify issues, as well as help during all deliverables of the project.
5. ERS will provide a work area for Vendor to use during on-site activities which include Internet and public phone access.
6. ERS will provide parking passes and adequate parking for the Vendor project team
7. Standard hours of operation are 8:00 AM to 5:00 PM Central Time Monday through Friday; core office hours are 9:00 AM to 3:30 PM. It is understood that due to the nature of the industry and work performed, after-hours and weekend availability is often required. In the event Vendor resources are required to perform work outside of the standard hours of operation, agreed-upon work windows will be discussed and subsequently documented via email. It is also required that the ERS project manager or a technical contact be on-site during the agreed-upon weekend/after-hours work window(s).
8. ERS will participate in all deliverables and planning sessions
9. ERS will provide Vendor with full access to the relevant functional, technical, and business resources with adequate skills and knowledge to support the performance of services.
10. ERS delays to provide Vendor the necessary data to accomplish each task may result in timeline changes.
11. Before project work begins, ERS must review and approve Vendor's standard Certificate of Insurance (COI). ERS should allow up to 10 business days, if ERS requires endorsements to be added to the COI.
12. The Vendor agrees that all work done under this SOW is a Work for Hire. The Vendor retains no rights to inventions, copyrights, or any other intellectual property developed solely for ERS during the course of this engagement. The Vendor retains rights to prior work used to develop ERS materials but grants ERS a royalty-free perpetual license to the work products of this SOW.
13. The Vendor has no rights to ERS data and may not keep or use ERS data in future engagements. No tangible ERS data and work products can be maintained by the Vendor in any format or on vendor equipment during this engagement or after the contract has ended.
14. The Vendor agrees to sign a Non-Disclosure Agreement for the term of this engagement
15. The Vendor agrees to sign an ERS HIPAA Business Associate Agreement.
16. Vendor will provide names and professional qualifications for all persons assigned to perform the work at time of proposal submission. All Vendor personnel assigned to work on the project must demonstrate their current knowledge and expertise in the Data Management space with specific industry knowledge in Data Governance and emphasis on Data Quality. Government Benefits Administration and Pension Administration experience is preferred. See Appendix A for the format of this submission. There are also questions regarding company background and other similar experience that is also required.
17. All document deliverables must be in formats (hard copy and electronic) as requested by ERS - at a minimum, the formats must be in industry accepted standards (e.g., PDF, MS Word, MS PowerPoint, MS Project)
18. The Vendor agrees that each person staffing the project must pass an FBI Fingerprint and Background Check prior to beginning work on the project.

VII. PROJECT UPDATES

ERS will receive a project update from the Vendor each week at an agreed upon day and time. It will contain the following in order to facilitate discussion about the status and all pending items:

- Issues or punch-list items which need to be reviewed, in the following order:

- Urgent items marked as urgent will be reviewed by the appropriate responsible party and resolved or updated during the same day.
- Normal items require, at most, one week for resolution.
- Risks that impact deliverables
- Potential hurdles that may impact deliverables
- Issues pending ERS feedback will be assessed during the update.
- Items with no due date will be noted for review and assignment at a later time.
- Change requests

VIII. CHANGE REQUESTS

ERS and Vendor affirm they are fully committed to completing this project on time and within the established budget. All scope changes must be reviewed by both ERS and Vendor as soon as possible, but at least by the next project update meeting. The following outlines the change request procedure:

1. ERS and the Vendor will discuss the change request and mutually agree on the scope of the change.
2. ERS and the Vendor's PM will document the change.
3. The Vendor will determine the impact to the original schedule and cost impact, if any.
4. ERS and Vendor make an addendum to the project scope documentation, milestone dates, and other required project artifacts. Any substantive and significant scope changes will also need to be resubmitted to DIR for approval
5. The Vendor and ERS will sign the change request which contains the information listed in steps 1-4 above.
6. ERS will execute the Purchase Order Change Notice (POCN) to the purchase order
7. The duly authorized ERS representative who may approve change orders is John Lovelace. All change requests must also be approved by DIR.

All other terms within the original SOW, in addition to the signed addendum, will remain intact.

IX. FEE SCHEDULE

The Services will be performed by Vendor on a Fixed Fee basis and may be invoiced per deliverable as shown in the table below once the key deliverables have been accepted by ERS. Vendor will not be reimbursed for travel or taxes. Payments will be made in accordance with the Texas Prompt Payment Law, Texas Government Code section 2251.021.

	Major Deliverables	Section(s)	Price
1.	Data profiling and analysis	IV, Deliverable 1	\$
2.	Creation of Metrics	IV, Deliverable 1	\$
3.	Establish DG Framework	IV, Deliverable 1	\$
4.	Implement DG Framework	IV, Deliverable 1	\$
5.	Establish DQM Framework	IV, Deliverable 2	\$
6.	Implement DQM Framework	IV, Deliverable 2	\$
7.	Scale and Implement next Deliverable of DG/DQM	IV, Deliverable 3	\$
8.	Project Close – including all key deliverables and all acceptance criteria in Section III	All previous deliverables and section III.	\$

The total cost to complete this SOW is \$ 1,140,000.

Current DIR Contract number: **DIR-TSO-4028**

Our fee schedule and pricing are based on the following assumptions:

This engagement is based on a deliverables based agreement and is anticipated to start on or about June 11, 2018 and run through approximately May 20, 2019, or as otherwise set forth in the agreement between ERS and KPMG ("Contract") in connection with this SOW. Phase 3 is assumed to be 3 calendar months in duration.

Interviews and workshops will be conducted within the first 6 weeks of the engagement. KPMG will conduct up to 16 interviews and/or work-sessions. Available relevant documentation requested will be supplied within the first 4 weeks of the engagement.

ERS will make every reasonable effort to make applicable stakeholders and subject matter experts available to KPMG during the engagement. ERS will provide resources with appropriate skill sets that are knowledgeable in the current state of PeopleSoft modules, data management, data governance, and data quality as it relates to organization, process, resources and technology.

The draft deliverables will be provided to the ERS point of contact for review, comment, and approval prior to final delivery. ERS will provide timely review of deliverables by KPMG, indicating either acceptance or rejection (with reasons for rejection) within five (5) business days.

Prior to the start of this engagement, ERS and KPMG will each designate a person to be the single point of contact for all communications regarding the contract and KPMG between ERS and KPMG during the engagement. ERS will designate a Project Manager to serve as KPMG's single point of contact for project deliverable reviews and written acceptances.

ERS is responsible for making an informed judgment on the results of the assessment, analyses and other deliverables and agree to:

- Designate a suitably skilled, knowledgeable, and experienced management-level individual (Project Manager) to be responsible and accountable for overseeing the KPMG engagement.
- Establish, maintain and monitor the engagement to ensure that it meets management's objectives.
- Make all management decisions and perform all management functions related to the engagement and accept full responsibility for such, including review and acceptance of KPMG Deliverables and other key project elements such as assumptions, criteria and milestones.
- Evaluate the adequacy of the services performed and any recommendations that result.

ERS will provide KPMG with connectors and connectivity to the data environment. ERS will provide KPMG laptop access to the data environment or ERS provided laptops with the connectivity. With respect to KPMG's use of third party software in delivering the services, as necessary and applicable, additional terms related to the third party software will be discussed and negotiated with ERS.

Based on the results of initial performance tests, ERS may have to provide a server with connectivity to the data environment. KPMG's software toolkit will need to be installed on the server and accessible via the laptops.

ERS will name and assign a technical resource to assist with configuring and troubleshooting issues with ERS environments.

ERS will provide a common office space adequate for KPMG personnel. The space will include access to a telephone, printer/copier and internet connectivity.

All activities will be performed in either ERS Offices in Austin or remotely in KPMG offices [REDACTED]
[REDACTED]

KPMG's proposal will be incorporated by reference and made a part of any resulting contract. This proposal is submitted under the terms and conditions of DBITs contract DIR-TSO-4028.

KPMG will act as an independent contractor in providing the services as set out in this proposal and does not undertake to perform obligations of ERS, whether regulatory or contractual. In carrying out our work hereunder:

- A. KPMG will not act in the capacity equivalent to a member of management or as an employee of ERS.
- B. KPMG may retain a copy of information received, developed, or otherwise relating to this Agreement as part of Contractor's work papers in order to comply with its contractual obligations and applicable professional standards..
- C. Management Decisions - ERS acknowledges and agrees that KPMG's services may include advice and recommendations; but all decisions in connection with the implementation of such advice and recommendations shall be the responsibility of, and made by ERS. KPMG will not perform management functions or make management decisions for the ERS. KPMG will not form part of the ERS's internal control structure.
- D. As between KPMG and ERS, the deliverables to be provided to ERS pursuant to this SOW, along with any reports, documentation and related data ("Work Product") and intellectual property rights therein are and shall be owned exclusively by ERS, and not KPMG. KPMG specifically agrees that all Work Product shall be considered a "work made for hire" and that the Work Product shall, upon creation, be owned exclusively by ERS. To the extent that any pre-existing rights are embodied or reflected in the Work Product, KPMG hereby grants to ERS the irrevocable, perpetual, non-exclusive, worldwide, royalty-free license to (a) use, execute, reproduce, display, perform, distribute copies of, and prepare derivative works based upon such pre-existing rights and any derivative works thereof, and (b) authorize others to do any or all of the foregoing.
- E. ERS acknowledges and agrees that any advice, recommendations, information, Deliverables or other work product ("Advice") provided by the Contractor in connection with the services under the Contract is intended for ERS' sole benefit and the Contractor does not authorize any party other than ERS to benefit from or rely upon such Advice, or make any claims against the Contractor relating thereto. Any such benefit or reliance by another party shall be at such party's sole risk. Contractor may, in its sole discretion mark such Advice to reflect the foregoing. KPMG's services as outlined in this proposal constitute an advisory engagement conducted under the American Institute of Certified Public Accountants ("AICPA") Standards for Consulting Services. Such services are not intended to be an audit, examination, attestation, special report or agreed- upon procedures engagements as those services are defined in AICPA literature applicable to such engagements conducted by independent auditors. Accordingly, these services shall not result in the issuance of a written communication to third parties by KPMG directly reporting on financial data or internal control or expressing a conclusion or any other form of assurance.
- F. To perform the data quality assessment, software owned or properly licensed to KPMG will be installed, with the assistance of ERS, on devices provided by ERS. KPMG will indemnify ERS for any third party infringement claims for use of such software pursuant to Appendix A of KPMG's DBITS Contract. ERS may not use the software for any purpose other than to

permit KPMG's use. KPMG will remove the software on completion or termination of the engagement.

X. PROPOSAL PROCESS

Proposals shall be prepared simply and economically, providing a straightforward, concise description of the proposer's capabilities to satisfy the requirements of this SOW. Emphasis should be on completeness and clarity of content and cost effectiveness of the proposal.

Submissions will be made by email to ISAdministration@ers.state.tx.us by December 20, 2017 at 10:00AM CST.

XI. Proposal requirements must contain:

1. A statement of the DIR contract number which will govern the completion of the work associated with the SOW (section IX)
2. Milestone completion dates in section V.
3. Vendor employee names and professional qualifications of persons assigned to complete the work (Appendix A, Table A)
4. Vendor qualifications (Appendix A, Table B plus additional questions below Table B)
5. Cost of proposal (Section IX)
6. Signed proposal (this document), with changes underlined/struck out (redlines)

XII. SOW schedule of events:

- October 10, 2017 – SOW release
- November 6, 2017 10:00 AM – A vendor conference call to ask questions will be held at (512) 867-7796
- November 8, 2017, 10:00 AM – Deadline for written questions. All questions must be submitted in writing to ISAdministration@ers.state.tx.us. Answers to all questions will be emailed to all SOW recipients
- November 15, 2017 – Answers are sent to all SOW recipients
- December 20, 2017, 10:00 AM - One copy of the Vendor proposal, along with all changes to the scope underlined (this document), will be received at the ISAdministration@ers.state.tx.us email address. All submissions are in PDF format.
- On or prior to January 29, 2018 a contract for Data Governance and Data Quality Implementation services will be signed and executed by ERS and the Vendor. DIR will also need to review the final version of the SOW.
- All other dates to be governed by the deliverables in section V.

XIII. NOTICE

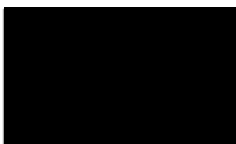
1. ERS agrees to provide reasonable written notice to the Vendor and the opportunity to cure any deficiency that forms the basis for termination for cause. In the event of a material or persistent breach of this Agreement that can be corrected but has not been after the opportunity to cure such breach, then this Agreement may be terminated immediately by either party giving notice to the other in writing, otherwise the engagement shall remain in force for the Period.
2. A notice required to be served hereunder shall be deemed sufficiently served seventy-two business hours after it shall have been sent either by email to the main contact email address or by first class post to the registered office or last known address of the party on whom it is desired to serve the notice

XIV. ACCEPTANCE

Accepted by:

KPMG, LLP

Signature:



Print Name: Robert Wentz

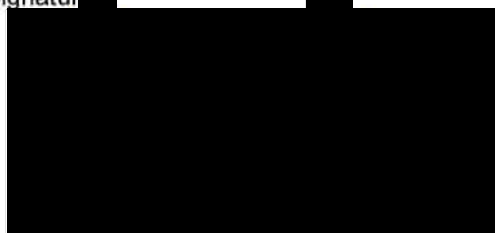
Title: Managing Director

Date: May 15, 2018

Accepted by:

Employees Retirement System of Texas

Signature:




Print Name: Porter Wilson

Title: Executive Director

Date: 5/21/18

SOW ID #ERS-000009

DocuSigned by:


Hershel Becker

Chief Procurement Officer

Texas Department of Information Resources

Date: 5/25/2018 | 12:44 PM CDT

XVI. APPENDIX A

Complete the table below by putting the name of the person(s) assigned to the project in the space at the top of the table; these persons must be actually working on the project. Fill in the appropriate number for each column depending on whether the resource worked on Data Governance or DQM. Duplicate the table for each person:

Table A

Qualifications of each Resource:		Data Governance	Data Quality Management
Resource Name: [REDACTED]			
Will the resource be assigned to DG, DQM, or both? Both			
Resource's DG/DQM Consulting and Experience			
1	In the last five years, how many years has the Resource worked directly on DG/DQM implementations?	[REDACTED]	[REDACTED]
2	In the last five years, how many DG/DQM implementations has the Resource worked on from project inception to project completion?	[REDACTED]	[REDACTED]
3	How many total years of experience does the Resource have implementing DG/DQM on a PeopleSoft HRMS ERP?	[REDACTED]	[REDACTED]
4	How many total years of experience does the Resource have implementing DG/DQM on a project involving a third-party vendor?	[REDACTED]	[REDACTED]
5	How many total years of experience does the Resource have implementing Data Governance directly including HIPAA compliance?	[REDACTED]	[REDACTED]
6	How many total years of experience does the Resource have implementing Data Governance directly including a system of record and a data warehouse?	[REDACTED]	[REDACTED]
7	How many DG and DQM professional certifications does the Resource have that are current/active? If yes, please list the names of each certification below.	[REDACTED]	[REDACTED]
8	Active Certifications List: [REDACTED]		
9	In the last five years, how many DG/DQM implementations have directly included benefits administration?	[REDACTED]	[REDACTED]
10	In the last five years, how many DG/DQM implementations have directly included government pension administration?	[REDACTED]	[REDACTED]

Qualifications of each Resource:			
Resource Name: [REDACTED]		Data Governance	Data Quality Management
Will the resource be assigned to DG, DQM, or both? Both			
Resource's DG/DQM Consulting and Experience			
1	In the last five years, how many years has the Resource worked directly on DG/DQM implementations?	[REDACTED]	[REDACTED]
2	In the last five years, how many DG/DQM implementations has the Resource worked on from project inception to project completion?	[REDACTED]	[REDACTED]
3	How many total years of experience does the Resource have implementing DG/DQM on a PeopleSoft HRMS ERP?	[REDACTED]	[REDACTED]
4	How many total years of experience does the Resource have implementing DG/DQM on a project involving a third-party vendor?	[REDACTED]	[REDACTED]
5	How many total years of experience does the Resource have implementing Data Governance directly including HIPAA compliance?	[REDACTED]	[REDACTED]
6	How many total years of experience does the Resource have implementing Data Governance directly including a system of record and a data warehouse?	[REDACTED]	[REDACTED]
7	How many DG and DQM professional certifications does the Resource have that are current/active? If yes, please list the names of each certification below.	[REDACTED]	[REDACTED]
8	Active Certifications List: [REDACTED]		
9	In the last five years, how many DG/DQM implementations have directly included benefits administration?	[REDACTED]	[REDACTED]
10	In the last five years, how many DG/DQM implementations have directly included government pension administration?	[REDACTED]	[REDACTED]

Qualifications of each Resource:			
Resource Name: [REDACTED]		Data Governance	Data Quality Management
Will the resource be assigned to DG, DQM, or both? Both			
Resource's DG/DQM Consulting and Experience			
1	In the last five years, how many years has the Resource worked directly on DG/DQM implementations?	[REDACTED]	[REDACTED]
2	In the last five years, how many DG/DQM implementations has the Resource worked on from project inception to project completion?	[REDACTED]	[REDACTED]
3	How many total years of experience does the Resource have implementing DG/DQM on a PeopleSoft HRMS ERP?	[REDACTED]	[REDACTED]
4	How many total years of experience does the Resource have implementing DG/DQM on a project involving a third-party vendor?	[REDACTED]	[REDACTED]
5	How many total years of experience does the Resource have implementing Data Governance directly including HIPAA compliance?	[REDACTED]	[REDACTED]
6	How many total years of experience does the Resource have implementing Data Governance directly including a system of record and a data warehouse?	[REDACTED]	[REDACTED]
7	How many DG and DQM professional certifications does the Resource have that are current/active? If yes, please list the names of each certification below.	[REDACTED]	[REDACTED]
8	Active Certifications List:		
9	In the last five years, how many DG/DQM implementations have directly included benefits administration?	[REDACTED]	[REDACTED]
10	In the last five years, how many DG/DQM implementations have directly included government pension administration?	[REDACTED]	[REDACTED]

Qualifications of each Resource:			Data Governance	Data Quality Management
Resource Name: [REDACTED]				
Will the resource be assigned to DG, DQM, or both? Both				
<i>Resource's DG/DQM Consulting and Experience</i>				
1	In the last five years, how many years has the Resource worked directly on DG/DQM implementations?			
2	In the last five years, how many DG/DQM implementations has the Resource worked on from project inception to project completion?			
3	How many total years of experience does the Resource have implementing DG/DQM on a PeopleSoft HRMS ERP?			
4	How many total years of experience does the Resource have implementing DG/DQM on a project involving a third-party vendor?			
5	How many total years of experience does the Resource have implementing Data Governance directly including HIPAA compliance?			
6	How many total years of experience does the Resource have implementing Data Governance directly including a system of record and a data warehouse?			
7	How many DG and DQM professional certifications does the Resource have that are current/active? If yes, please list the names of each certification below.			
8	Active Certifications List:			
9	In the last five years, how many DG/DQM implementations have directly included benefits administration?			
10	In the last five years, how many DG/DQM implementations have directly included government pension administration?			

Qualifications of each Resource:			Data Governance	Data Quality Management
Resource Name: [REDACTED]				
Will the resource be assigned to DG, DQM, or both? Both				
<i>Resource's DG/DQM Consulting and Experience</i>				
1	In the last five years, how many years has the Resource worked directly on DG/DQM implementations?			
2	In the last five years, how many DG/DQM implementations has the Resource worked on from project inception to project completion?			
3	How many total years of experience does the Resource have implementing DG/DQM on a PeopleSoft HRMS ERP?			
4	How many total years of experience does the Resource have implementing DG/DQM on a project involving a third-party vendor?			
5	How many total years of experience does the Resource have implementing Data Governance directly including HIPAA compliance?			
6	How many total years of experience does the Resource have implementing Data Governance directly including a system of record and a data warehouse?			
7	How many DG and DQM professional certifications does the Resource have that are current/active? If yes, please list the names of each certification below.			
8	Active Certifications List:			
9	In the last five years, how many DG/DQM implementations have directly included benefits administration?			
10	In the last five years, how many DG/DQM implementations have directly included government pension administration?			

Qualifications of each Resource:		Data Governance	Data Quality Management
Resource Name: [REDACTED]			
Will the resource be assigned to DG, DQM, or both? Both			
Resource's DG/DQM Consulting and Experience			
1	In the last five years, how many years has the Resource worked directly on DG/DQM implementations?	<input type="checkbox"/>	<input type="checkbox"/>
2	In the last five years, how many DG/DQM implementations has the Resource worked on from project inception to project completion?	<input type="checkbox"/>	<input type="checkbox"/>
3	How many total years of experience does the Resource have implementing DG/DQM on a PeopleSoft HRMS ERP?	<input type="checkbox"/>	<input type="checkbox"/>
4	How many total years of experience does the Resource have implementing DG/DQM on a project involving a third-party vendor?	<input type="checkbox"/>	<input type="checkbox"/>
5	How many total years of experience does the Resource have implementing Data Governance directly including HIPAA compliance?	<input type="checkbox"/>	<input type="checkbox"/>
6	How many total years of experience does the Resource have implementing Data Governance directly including a system of record and a data warehouse?	<input type="checkbox"/>	<input type="checkbox"/>
7	How many DG and DQM professional certifications does the Resource have that are current/active? If yes, please list the names of each certification below.	<input type="checkbox"/>	<input type="checkbox"/>
8	Active Certifications List:		
9	In the last five years, how many DG/DQM implementations have directly included benefits administration?	<input type="checkbox"/>	<input type="checkbox"/>
10	In the last five years, how many DG/DQM implementations have directly included government pension administration?	<input type="checkbox"/>	<input type="checkbox"/>

Complete the table below (Table B), putting the correct number for “Data Governance projects” and “Data Quality Management projects” in the row next to the question.

Table B

Questions		Data Governance	Data Quality Management
<i>DG/DQM Consulting</i>			
1	How many years has the company been performing consulting?		
2	How many employees perform consulting?		
3	What is the average number of months for consulting projects?		
4	What is the average number of months for government consulting projects?		
5	How many referenceable consulting projects completed in the last five years?		
6	How many government consulting projects completed in the last five years?		
<i>DG/DQM Implementation</i>			
7	How many years has the company been performing implementations?		
8	How many employees perform implementations?		
9	What is the average number of months for implementation projects?		
10	What is the average number of months for implementing government projects?		
11	How many implementation projects completed in the last five years?		
12	How many government projects implemented in the last five years?		
<i>DG/DQM – Years of experience implementing frameworks for</i>			
13	Benefits administration?		
14	Government pension administration?		
15	A PeopleSoft HRMS ERP?		
16	HIPAA compliance?		
17	A system of record and a data warehouse?		

18. What is your methodology for implementing Data Governance and Data Quality?

KPMG Data Governance and Data Quality Management Methodology Features

Applying our data governance and data quality management methodologies will lead to a practical and realizable set of frameworks, processes, procedures, and metrics by leveraging:

— [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

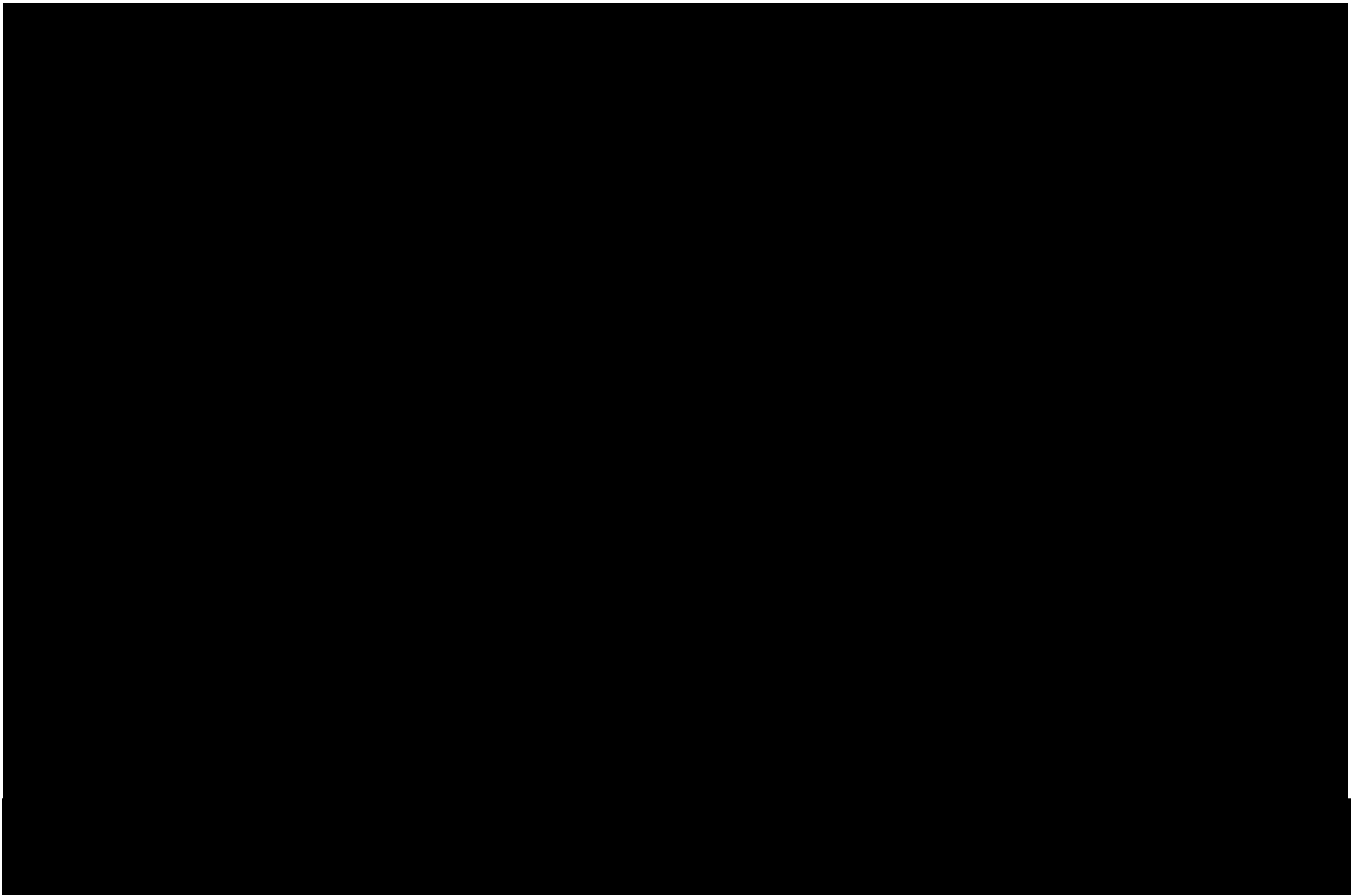
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



Analyze and assess data

- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Assess current state data governance capabilities

During this task we will work with ERS to:

- [REDACTED]

- [REDACTED]

[REDACTED]

[REDACTED]

- [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Phase I Deliverables and Work Products

The deliverables for this Phase are:

# Deliverable	Name	Description
1	Data profiling and analysis	A document describing the results of the profiling and data quality assessment results
2	Creation of Metrics	A document identifying and describing metrics to assist in determining the priorities, reporting project progress, and sustained state of improvement.
3	Establish DG Framework	<p>A document describing the current state, target state data governance environment, gap analysis, and recommendations for a roadmap/implementation plan. Document will also contain a data governance capabilities benchmark against other organizations.</p> <p>Training course material and conclusion of train-the-trainer class.</p>
4	Implement DG Framework	A document capturing the advice and recommendations as ERS is implementing the planned initiatives for the data governance roadmap.



Phase II: Data Quality Management Framework

During this phase we will work with ERS to perform the following tasks:

Analyze and assess existing DQM processes, technologies, and controls

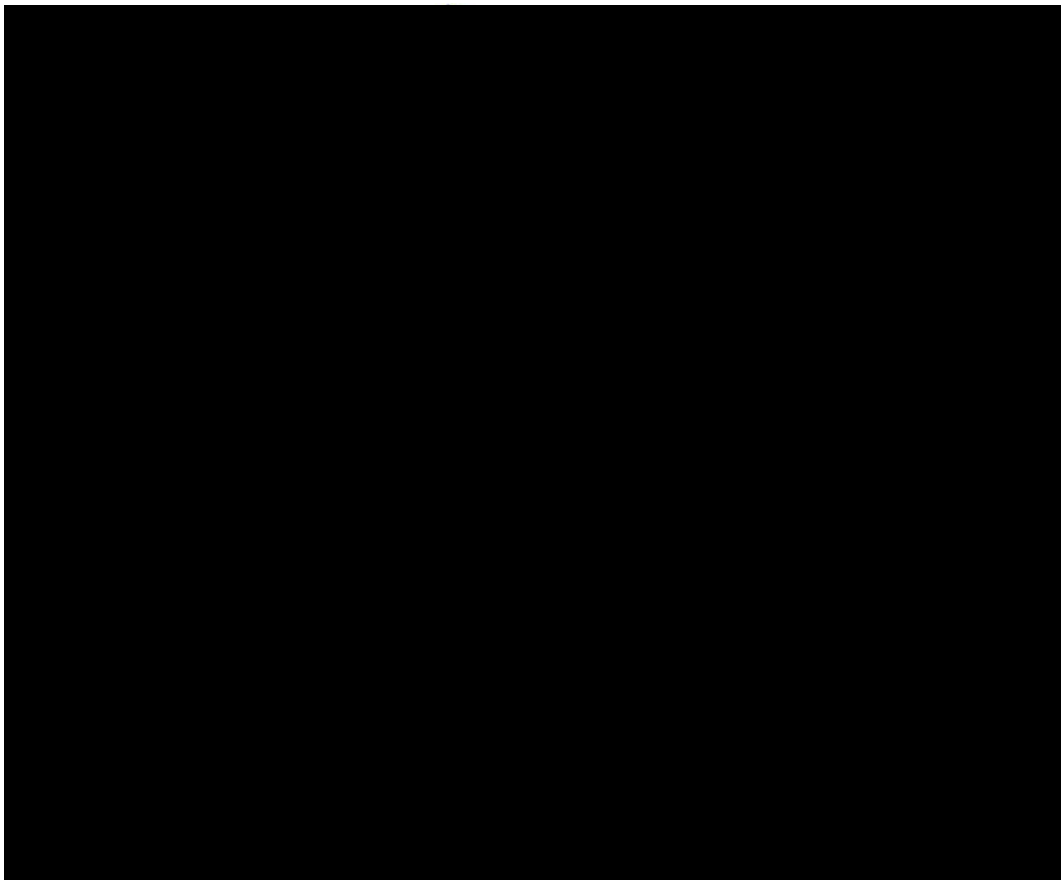
During this task we will work with ERS to:

- Conduct interviews and work sessions with key DQM stakeholders and evaluate current state data quality management relevant documentation.

- [REDACTED]

Document target state DQM framework, and identify gaps

- Using our assessment and design frameworks and templates, we will work with ERS to document the target state data quality framework again addressing organization, process, supporting technologies, and data metrics. We will then identify gaps between the current state data quality capabilities and the target state framework. [REDACTED]



Assist ERS with prioritizing addressing of the gaps

- During this task we will use the metrics defined in Phase I and work with designated ERS stakeholders to prioritize a set of data quality management initiatives to address the identified gaps.

Conduct DQM Knowledge Transfer

- During this task we will customize our existing data quality management training material and deliver a train the trainer data quality management course on the target data quality management capabilities. We will also deliver the training material.
- We also encourage knowledge transfer through observation while we are conducting our data quality assessment and testing.

Prepare DQM roadmap/plan recommendations

- Based on the metrics and the prioritization results, during this task we will work with ERS on assisting with developing a set of recommendations for the sequence and timing of data quality management initiatives to address the prioritized gaps. These will be integrated with the data governance planned activities. We will document the plan recommendations.

Assist in implementing the plan by providing advice and recommendations

- As ERS implements the initiatives identified in the roadmap, we will provide recommendations and advice on their implementation of the initiatives. We will document our advice and recommendations.

Phase II Deliverables and Work Products

The deliverables for this Phase are:

# Deliverable	Name	Description
5	Establish DQM Framework	A document describing the current state, target state data quality management environment, gap analysis, and recommendations for a roadmap/implementation plan. Training course material and conclusion of train-the-trainer class.
6	Implement DQM Framework	A document capturing the advice and recommendations as ERS is implementing the planned initiatives for the data quality management roadmap.

Phase III: Coaching on Next Strategic Areas of Focus

The objective for this phase is to enable ERS staff to continue to expand the DQM and DG footprint across the agency.

During this phase KPMG will assist ERS by coaching ERS staff in the implementation of the next most strategic area or set of CDEs based on metrics produced in Phase I. The frameworks and functions from Phase I (DG) and II (DQM) will be used and, for scalability purposes, and lessons learned will be adjusted as necessary.

The deliverable for this Phase is:

# Deliverable	Name	Description
7	Scale and Implement next Deliverable of DG/DQM	A document capturing the advice and recommendations and adjustments to frameworks as ERS is implementing the next strategic area and corresponding set of CDEs.

Final Phase: Project Close

During this phase we will capture key lessons learned during the project and a project closure report documenting the acceptance and sign-off by ERS of all deliverables.

The deliverable for this Phase is:

# Deliverable	Name	Description
8	Project Close – including all key deliverables and all acceptance criteria in Section III	A project closure report capturing key lessons learned and acceptance and sign-off by ERS of all deliverables.

19. How do you ensure that the appropriate people take ownership in DG and their associated responsibilities in the data quality lifecycle?

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

20. What is your business domain specific experience?

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

1. *Journal of the American Medical Association*, 2000; 283: 2689-2695.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

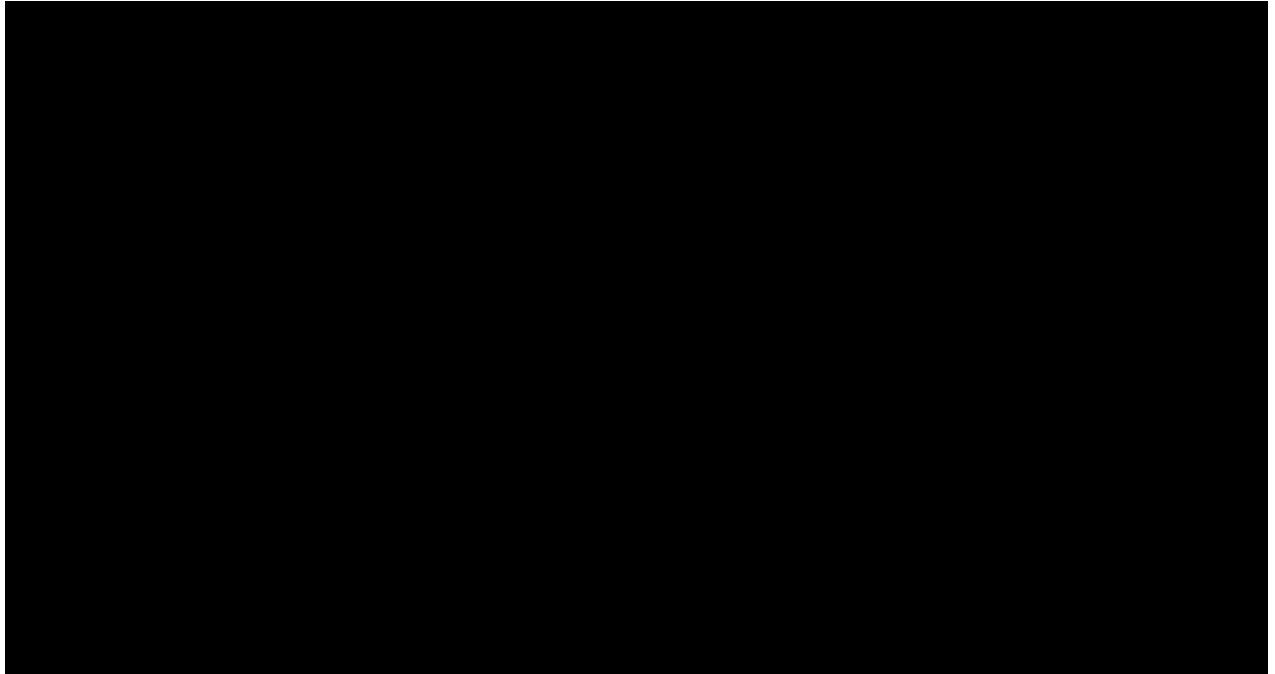
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



21. Do your projects typically require a particular named tool or software for full implementation? If yes, please name the tool and describe why you often require this tool?

[REDACTED]

[REDACTED]

22. Describe your projects where customer data under governance resided with different systems, including third-party providers.

[REDACTED]

[REDACTED]

- I [REDACTED]

- I [REDACTED]

- I [REDACTED]

- I [REDACTED]

[REDACTED]

APPENDIX B

The Data Governance frameworks should be based on the DAMA International Data Management Body of Knowledge:

1. DG Planning framework shall enable ERS to:
 - a. Understand Strategic Enterprise Data Needs
 - b. Review the existing Data Strategy and enhance it to encompass item 2 above
 - c. Establish Data Professional Roles and Organization(s)
 - d. Identify and appoint Data Stewards
 - e. Establish Data Governance and Data Stewardship Organizations
 - f. Develop and Approve data policies, standards and procedures
 - g. Review and approve data architecture
 - h. Plan and sponsor data management projects and services
 - i. Estimate data asset value and associated costs
2. DG Control framework shall enable ERS to:
 - a. Supervise the Data Professional Organization and Staff
 - b. Coordinate the Data Governance Activities
 - c. Manage and resolve data related issues
 - d. Monitor and ensure regulatory compliance (HIPAA, Insider Trading, Audit, etc.)
 - e. Monitor and enforce conformance with Data Policies, Standards, and Architecture
 - f. Oversee Data Management Projects and Services
 - g. Communicate and promote the value of data assets

APPENDIX C

1. The Data Quality Management framework should be based on the DAMA International Data Management Body of Knowledge:
 - a. Develop and Promote DQM Awareness
 - b. Include the tasks from Deliverable 1.1.a. in the framework:
 - i. Define DQM Requirements
 - ii. Profile, Analyze, and Assess Data Quality
 - iii. Define Data Quality Business Rules
 - iv. Test and Validate Data Quality Requirements
 - c. Set and Evaluate Data Quality Service Levels
 - d. Continuously Measure and Monitor Data Quality
 - e. Manage Data Quality Issues
 - f. Clean and Correct Data Quality Defects
 - g. Design and Implement Operational DQM Procedures
 - h. Monitor Operational DQM Procedures and Performance