Statement of Work
Sewerage and Water Board of New Orleans
January 6, 2014

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1 Introduction

This Statement of Work (SOW) is entered into per the Agreement Date by and between Cogsdale Corporation (hereinafter "**Cogsdale**"), a Division of Harris Computer Systems, with principal offices in Charlottetown, PE, and the Sewerage and Water Board of New Orleans (hereinafter "**Client**"), with principal offices in New Orleans, LA.
Background Statements:

- **Cogsdale** provides a range of computer services and software to utilities to achieve a business solution that meets the identified Customer Information System (CIS) Solution (CIS Solution) requirements of **Client**.

- **Client** wishes to engage **Cogsdale** for the implementation of a new CIS Solution and **Cogsdale** agrees to provide such services and/or software as agreed to in the terms provided herein.

- This Agreement provides the general detailed terms and provisions that govern the delivery of all services and/or deliverables to **Client** by **Cogsdale**.

This document is one of several that constitute the Agreement. As such, if any discrepancy exists between the documents, the precedence shall be listed in the Agreement. These documents help define the project's scope and will guide its execution.

1.1 Background

Client's current utility billing system is known as the Customer Account Management System (CAM) and is a 25 year old legacy mainframe system used to store utility customer information, process and schedule utility service requests, maintain meter inventory, post payments, and bill for water, sewer, and sanitation services. The CAM system posts to the general ledger financial system under the accrual basis of accounting.

Client's current number of active customer accounts in the CAM System is 127,000 and includes the metered water services, sewer, and sanitation. The customer base includes 100,000 water customers, 80,000 refuse customers, and 100,000 sewer customers. The number of accounts may vary by service due to customers having single or multiple services. For example, an apartment building may have one water meter and 4 sanitation accounts.

1.2 Project Goals and Objectives

The **Client** goals for this project and their supporting objectives are:

- Implement a new CIS Solution in accordance with Cogsdale's CIS Solution proposal and this Agreement on a modern, mainstream technology platform:
  - Move to a current Windows-based server platform from current Legacy hardware.
  - Move to the current version of SQL database.
  - Install a system that will interface with (or provide replacement solutions for) **Client**'s other information systems, in particular, a mandatory interface to Client's accounting system.
  - Implement advanced options for calculating customer bills, and providing electronic billing, customer self-service capabilities, and other common functions and features.

  - Provide a system that is flexible enough to accommodate business changes, requests for new services, and the need for enhanced business information.
  - Install a system that is upgraded and enhanced regularly by **Cogsdale.**
  - Install a system that provides best business-practice methodologies.
  - Install a cost-effective system that can be easily maintained.
  - Install a **Cogsdale** system that has demonstrated **Client** commitment, and is expected to have a stable future in the CIS software business.
  - Install a **Cogsdale** system that has a proven track record of excellent support.
- Provide better customer service:
  - Provide the following benefits: easy access to information, user friendliness, process automation, real-time system changes, billing flexibility, and 24/7 access.
  - Accurately calculate bills for all Customer classes, services, and cycles.
  - Correctly allocate accounts receivable and payments among GL funds.
  - Correctly process account, property, and asset maintenance activities.
  - Provide Customer Service Reps (CSRs) with quicker access to customer information in one centralized location.
  - Enhance customer self-service capabilities (that is, account information, payment options, service activities, etc.).
  - Increase the efficiency and effectiveness of both employees and business processes to increase and improve employee job satisfaction, resulting in better customer service.
  - Generate customer service metrics to satisfy the business' own desire to improve as well as meet future regulatory requirements.
  - Improve data access through the use of Business Intelligence (BI) and reporting tools.
- Manage the project well:
  - Deliver the project on time and within budget.
  - Employ a formal project management process as prescribed by the IT Process framework.
  - Engage the users of the system in the communication and decision-making processes to develop ownership and acceptance of the new system.
  - Provide adequate knowledge transfer throughout the project.
  - Ensure that the implementation is as non-disruptive as possible to customers.

The **Cogsdale** goals and objectives are:

- The successful implementation of **Cogsdale** proposed CIS Solution at **Client**.
- **Client** as a long-term and referenceable customer.

2 Project Assumptions

It is assumed that:

a) **Client** will strive to minimize the impact of competing initiatives within the organization that may have a negative impact to the Project.
b) All prices are quoted in US dollars.
c) The Fixed Cost will be firm for the services identified herein through the project's duration and post-implementation support, as identified in this SOW. **All prices include travel costs.**
d) Prompt decision-making and problem resolution will be required to achieve an on-time, on-budget project completion. It is expected most decisions and/or problems will be resolved within five business days (or to a mutually agreed to timeframe).
e) **Client** and **Cogsdale** understand the project scope and project timelines and agree to communicate and adhere to those objectives, thus setting the proper expectation level.
f) Any and all changes to the SOW shall be managed in accordance with the Agreement Change Order process.
g) **Cogsdale** will utilize the 2010 version of Microsoft products, including Word, Excel, Project, Visio, PowerPoint, and Access, to produce deliverables according to **Cogsdale** technical standards. Should **Cogsdale** not operate at the same versions as **Client**, **Cogsdale** will make reasonable efforts, within Microsoft's product capabilities, to save documents and deliverables to a level that would be accessible by **Client** or vice versa.
h) **Client** will provide the hardware and network infrastructure necessary to execute the project in accordance with the equipment requirements identified by **Cogsdale**.
i) The **Client** will make Information Technology (IT) resources available to assist with data extraction, data mapping, and preliminary data validation during the conversion efforts.
j) All Workshops and any significant analysis or review activities that are facilitated by **Cogsdale** will be conducted onsite at the client's facilities. Exceptions may be granted by the mutual agreement of both Project Managers.
k) **Cogsdale** will provide the specified number of staff, as described in the detail project schedule and the staffing matrix, with the appropriate skills and experience to lead each workshop, analytical session, or other review activities, whether onsite or conducted remotely.
l) The client will provide workspace for each onsite **Cogsdale** consultant, with access to a desktop workstation, network, telephone and close proximity to the Project Team. Breakout and conference space will also be provided.
m) When **Cogsdale** is onsite, the Project Team should ideally be located near the **Cogsdale** project members to facilitate good communication and coordination amongst the team.
n) Adequate training space will be provided by the **Client** to train end users. The training room(s) will consist of at least twelve (12) fully-functioning, networked computers, meeting at least the **Client** minimum or better hardware standards.
o) The **Client** will ensure Project Team members are available for meetings, workshops, discussions and conference calls upon request by **Cogsdale**. Project Team members will respond to information requests by **Cogsdale** staff—not to exceed five (5) Business Days unless agreed upon in time to minimize delays in the project.

p) Whenever possible, the Project Team may consider alternative meeting options such as LiveMeeting, WebEx, video conferencing, Remote Desktop, and conference calls.
q) When onsite travel is cancelled by the Client after the purchase of airline tickets, and this is not an non-emergency situation, the client may be responsible for the cost of non-refundable or non-transferable airline tickets.
r) Both parties agree to work a reasonable amount of added hours (when required) to help complete project deliverables and project timelines as agreed upon by both Project Managers.
s) All **Client** and **Cogsdale** Project Team members are expected to take normal vacation and holiday days throughout the course of the project except during stages of the project where their presence is critical. ***The Project Managers will review any requests for time away from the project before approval is granted. All team members should provide their requests at least 30 days in advance of their requested leave date.***
t) **Cogsdale** will assume responsibility for the successful installation of the CIS Solution and completion of this SOW, including the management of all **Cogsdale** personnel, subcontracted resources, and related project activities.
u) **Cogsdale** will assume overall responsibility for conducting all project related administration activities including the development and administration of an MS Project-based work plan that clearly indicates all Client tasks and responsibilities.
v) **Cogsdale** is providing **Client** with a partially-configured system to streamline the design and implementation process. In addition, **Cogsdale** will provide template materials such as business procedures, training materials, test scripts, etc.
w) **Cogsdale** is responsible for the initial installation, configuration, and testing of multiple instances of the system for training, development, testing, etc., along with the setup of several user PC workstations necessary to support the system's front-end environment. After **Client** is familiar with this process, it becomes **Client**'s responsibility. **Client** expects that a minimum of six (6) environments may need to be created: Seed or Configuration, Development, Conversion, Testing, Training, and Production. **Cogsdale** will review the anticipated number of environments with **Client** to determine how many should be established, as well as reviewing administrative and support requirements that will be needed to efficiently administer the environments.
x) **Client** will implement and maintain a remote connection for **Cogsdale**'s access to **Client**'s server environment. This may be via direct access or a VPN tunnel.
y) **Cogsdale** will be responsible for researching a "known defect" database for software defects. During the project, any effort required to research software notes and apply patches is **Cogsdale**'s responsibility under the terms of this fixed-price contract. **Cogsdale** will work with the **Client** project team to complete these activities to keep them informed and guarantee knowledge transfer.
z) **Client** is willing to implement **Cogsdale** "Best Practices" to minimize the need for software customizations to the extent these practices meet the CIS Solution Requirements as proposed in Cogsdale's RFP response. This may not always be possible, but **Client** will approach each opportunity from this perspective.

Data Conversion Assumptions:

1. **Client** will assign individuals to conduct data preparation and cleansing activities.
2. **Cogsdale** will provide two experienced and qualified COBOL programmer/analysts to assist **Client** staff in supporting the legacy data conversion.

3. **Cogsdale** will develop a conversion strategy and present to **Client** for review and approval.
4. **Client** will assign technical resources to provide **Cogsdale** with current system file layouts and data descriptions.
5. **Cogsdale** will review **Client** file layouts and data descriptions. The mapping of source data to the target environment will be accomplished through a joint **Cogsdale** and **Client** workshop. **Cogsdale** and **Client** will prepare the mapping specifications based on these sessions.
6. **Cogsdale** will design, develop, and create validation processes (for example, dollars, meter reads, consumption) and unit test conversion load programs.
7. Major Services (DBE) with the support of **Client** will design, develop, and unit test the conversion extract programs.
8. **Cogsdale** will run the data conversion programs and verify the quality of the data.
9. **Cogsdale** will modify conversion load programs, and Major Services (DBE) with the support of **Client,** will modify conversion extract programs to address data conversion and data clean-up issues.
10. **Cogsdale** will execute a minimum of two mock conversions, and, if necessary, subsequent mock conversions will be conducted to prepare for Go-Live cutover as mutually agreed, based on the results of initial mock conversions.
11. **Client will assign individual(s) to assist with data validation.**

Development Assumptions:

1. **Cogsdale** is responsible for all modifications to the system to meet **Client**'s CIS Solution requirements as agreed to herein.
2. **Cogsdale** will take the lead and be responsible for the development of forms, reports, interfaces, conversions, enhancements, modifications, and workflow with the assistance of **Client** resources identified in this SOW.
3. **Cogsdale** assumes responsibility for managing the interface design, development, testing, and interface rollout.
4. **Client** will provide subject matter experts for the legacy system as required to support the design, development, and testing of interfaces against other systems.
5. **Cogsdale** will be responsible for performing quality assurance of all product enhancements, interfaces, reports, forms, and workflows prior to their delivery to the Client for testing and acceptance.

System Testing Assumptions:

1. **Cogsdale** will provide templates for developing test scripts.
2. **Cogsdale** and **Client** will jointly develop all test plans outlining the testing approach, methods, data, and participants.
3. **Cogsdale** will lead and **Client** will support conducting a product integration test to ensure the delivered product enhancements, interfaces, reports, forms, and workflows work to specification, and do not adversely impact the system as a whole.
4. **Cogsdale** and **Client** will assume responsibility for conducting a volume test to ensure batch and online performance is within contractual performance levels.
5. **Client** will assume responsibility for conducting a business test (Day in the Life) focusing on how well the business processes flow with the new system and a comprehensive User Acceptance Test.
6. **Client** will review and assist in testing activities under the direction of **Cogsdale**, for Cogsdale designated testing activities and Cogsdale will assist in testing activities under

the direction of the Client Test Manager for Client designated testing activities per the test plan.

7. **Cogsdale** will provide resources for product fixes resulting from errors identified during the system testing process.
8. **Cogsdale** will deliver the completed CIS Solution to **Client** for review and acceptance.

Training Assumptions:

1. **Client** is responsible for prerequisite education and training such as basic PC skills, Microsoft Windows training, and/or fundamental business process knowledge of the current business processes.
2. **Cogsdale** will modify the standard training program and training materials to reflect **Client**-specific workflows, modifications, and interfaces. **Client** may use these training materials for any subsequent training. in-house training classes.
3. **Cogsdale** will provide (1) initial Core Team training at the beginning of the project, (2) test team training prior to the start of testing activities, and (3) end user training for all Client end users prior to the go-live date.
4. **Client** will provide users with specific times during the workday to participate in the required training.
5. **Client** has the facilities and will provide the necessary logistics support for all training sessions, including: class schedules, meeting rooms, training rooms, material reproduction, overhead projectors, training workstations, and any other necessary training supplies.
6. **Client** will ensure end-user attendance during training.

Production Readiness and Cutover Assumptions:

1. **Cogsdale** and the Client will be responsible for developing an acceptance test plan that will be mutually agreed on by the parties.
2. **Client** will be responsible for conducting an acceptance test of the completed system as delivered by **Cogsdale** at the completion of integration/system testing activities.
3. **Cogsdale**, with assistance of **Client**, will develop a mutual agreement regarding the go-live plan and schedule.
4. **Cogsdale**, with **Client**, will conduct a minimum of two (2) Mock Go-lives (dress rehearsals). A Mock Go-live is an execution of a mock production go-live over a select weekend. These activities will utilize all automated processes and activities that will actually constitute the real Go-live. . Additional Mock Go-lives can be conducted upon mutual agreement.
5. **Cogsdale** will update the go-live plan and schedule with **Client** agreement, based on the results of each mock go-live. Should the dress rehearsals result in issues that will require additional mock go-live testing, then those tests will be performed.
6. **Cogsdale**, with assistance of **Client**, will stage all aspects of the system in preparation for production cutover.
7. **Cogsdale**, with assistance of **Client**, will conduct production cutover activities.
8. **Client** will conduct manual conversion activities for data, which do not conform to **Cogsdale**'s standard data model, as defined in the data conversion plan, following production cutover.

Post Implementation Support Assumptions:

1. A **Client** support group will be assembled prior to cutover to stabilize the implementation, and provide production support services, including user authorizations and security support.

2. **Cogsdale** will provide immediate production critical support to **Client** during the first one hundred two (102) days of operation as identified in this SOW.

3 Definitions

In addition to the definitions contained elsewhere in this SOW, the terms in the table below are defined using the associated descriptions. Where any word or phrase defined, or a pronoun used in place thereof, is used in any part of this document, it shall have the meaning herein set forth. These definitions apply to this SOW.

Definition/Term Name	***Definition/Term Description***
Acceptance Testing	Acceptance testing is **Client** validation against named features and functionality to ensure top-to-bottom functional stability and adherence to existing business requirements and business processes. Testing will be in several phases, including, but not limited to, functional testing, parallel testing, integration testing, and performance testing.
Business Day	One regular workday (Monday through Friday – non holidays or emergency days) as defined by the **Client**'s business calendar.
Business Process	A defined series of procedures that will identify and document process steps and system transactions. Business Process documentation can be used to facilitate testing and training.
Calendar Day/Days	A 24-hour period–typically starting at midnight.
Change Order	Any and all changes to the SOW must be agreed upon by the parties and evidenced in a written instrument signed by the parties' authorized representatives. Any changes that do not satisfy this requirement shall be deemed unauthorized, void, and unenforceable.
Change Management	The activities, events, processes and procedures that are employed for handling transformation from one system environment to another; this relates mainly to the people and business processes.
CIS Solution	The CIS **Solution** includes **Cogsdale** CSM as well as other Cogsdale and third party products as specified herein.
Configuration	Process of performing table updates and algorithm changes to the system to have the system perform **Client**'s specific user requirements. Configuration does not require programmatic software changes.
Conversion Validation	As a component of the data conversion process, this ensures the data from the legacy CIS to the CIS Solution has been completed accurately.
Courseware	End-User Training Materials that will be developed to facilitate end-user training execution.
Cut-Over	Includes all activities required to prepare the systems for the transition of the new CIS Solution to production processing. The activities will include: ensuring security setup, establishing user profiles, closing out pending data in the legacy system, manual data conversions when required, system access rollout to end users, and other activities **Cogsdale** and **Client** deem necessary.
Cycle Parallel Testing	Process of comparing generated bills from the legacy system and the new CIS Solution to compare mass volumes of rates and charges.

Definition/Term Name	***Definition/Term Description***
Data Dictionary	Information about a database that defines its tables, fields, field types, field lengths, precision and relationship to other tables. Similar to data model.
Data Mapping	The process of assigning source system data elements to target data elements in the system data model for purpose of conversion.
Data Model	Conceptual description of data objects, their attributes, and the relationships between them.
Mock Conversion	An execution of the conversion processes and programs for the entire dataset being converted. All Conversion Validation is executed as well as part of the Mock Conversion. A Mock Conversion consists of a test of the activities to be completed as part of the cut-over to the production process. The Mock Conversion is staged in the exact manner as the pre-go-live steps and procedures including data validation.
Modification	Custom code that is inserted into the standard system. This does not include configuration changes of any form.
Fallback Plan	Cut-over planning includes risk and contingency planning. A component of the contingency planning will include processes and procedures in the event that **Client** needs to roll back to a Legacy CIS system after the system go-live.
Fixed Price	The total cost for implementation & expenses to deliver the CIS Solution as noted in this SOW and other Exhibits to the Agreement.
Functional Requirements Document	Documents that describe, in business terms, all the changes to the software that **Cogsdale** will modify to meet the **Client** business requirements. These documents will include a definition of the change, screen layouts, report layouts, descriptions for searching, sorting, filtering, and generally how the change will be accomplished.
Functional Test	Singular test of an object, such as a screen, report, or batch program. These tests will focus on specific functions.
Functional Matrix	Document that contains the **Client** functional requirements to be delivered by **Cogsdale** for this CIS Solution implementation. This functional Matrix should also include cross references/traceability to the corresponding test cases.
Interface	Passing of data between two separate and distinct systems; can be accomplished in real-time or batch mode.
Integration Test	The integration testing will utilize formal test plans and scripts that will define how to test a singular feature and business process based on pre-defined expected results. Integration tests are formal in nature, cover multiple scenarios of a feature and process, and are based on the variations of **Client**'s business.
Legacy CIS	References the **Client**'s customer billing information system that is being replaced.

Definition/Term Name	***Definition/Term Description***
Business Process Design	The process design is conducted during business process modelling activities, and focused on conducting business process design work in the context of the system environment. This design work will address operational and organizational changes required to implement the proposed solution.
Performance Testing	This testing will exercise the system to ensure **Client** will achieve the stated performance goals.
Primary and Secondary Scenarios	Document that describes the steps and actions required to test a particular feature or function. **Cogsdale** will provide approximately 32 Primary Scenarios and 385 Secondary Scenarios that cover a sample of all major features of a CIS.
Quality Assurance	The process of verifying that the proper processes and procedures have been adhered to on the project from a methodology as well as project management perspective and that the deliverables produced on the project have included the appropriate content and meet expectations.
Script Testing	Testing using a pre-determined script or set of instructions. Testing can be either manual or automated work.
CIS Solution	Is the combination of licensed Cogsdale software, implementation services, work products and third party products as described herein.
Technical Specification	A document that describes, in technical terms, how a Functional Specification will be developed. These documents identify code, data elements, indexes, etc., that will require changes.
Test Matrix	A worksheet that identifies accounting periods, account numbers, financial transactions and other expected results for testing purposes.
Test Plan	Document that outlines a strategy or approach for testing a particular test script or group of test scripts. Describes key setup issues, dependencies, and other general factors.
Test Scripts	A series of actions, functions, or commands documented for the purpose of execution during various phases of testing.
User Acceptance Test	Final testing that will be conducted at the conclusion of all Integration testing. This testing phase will include all components of the project.

4 Scope of Work

4.1 General Description

Cogsdale shall use its implementation methodology to deliver the CIS Solution, while reporting and delivering to the client the requested deliverables and service levels in this SOW. The methodology encompasses Project Management tasks, Pre-project tasks, and seven (7) phases, as follows:

- Initiation
- Analysis
- Assembly
- Acceptance
- Pre Go-Live
- Cutover
- Post Go-Live

These items define the scope of project activities that will be provided by **Cogsdale**. These activities are further described below. All items in the Functional Matrix are within the scope of this project and delivery shall be confirmed through user testing. It is **Cogsdale**'s responsibility to provide all the capabilities described in the Functional Matrix with the CIS Solution.

4.1.1 Project Management and Project Governance

Cogsdale and **Client** Project Managers shall be jointly responsible for project management activities, including planning and execution, the delivery of change management, and project communications throughout the project. However, the Cogsdale Project Manager is ultimately accountable for the project, and retains the responsibility of ensuring day-to-day project decisions are made in accordance with the project schedule. The **Client** Project Manager will hold **Cogsdale**'s Project Manager and assigned resources accountable for the quality of services delivered, meeting the functional requirements, costs, and project timelines.

The Project Managers' overall management objective will be to quickly establish an effective project office, leveraging established **Cogsdale**'s methods, templates and tools, while working within the **Client** project management framework to provide an effective and efficient management structure. Section 5 of this document provides a more detailed description of **Cogsdale**'s Project Management methodology.

The project Steering Committee (SC) will be formed from **Client**'s project Sponsors, **Client**'s project Owners, and **Client**'s Project Manager. The Steering Committee will meet monthly. **Cogsdale**'s Project Manager will be a regular participant, but not a decision maker. The purpose of the Steering Committee is to provide overall project oversight, executive management involvement, and strategic project decisions.

4.1.2 Pre-project

Cogsdale will work with the **Client** and recommend the technical infrastructure required for the project as documented in the deliverable known as the Technical Infrastructure Document.

Cogsdale and DBE Activities

- Provide the recommended hardware and software specifications document.
- Order Microsoft GP software.
- Provide a list of Cogsdale users that will need remote access.

Client Activities

- Finalize technical infrastructure needs.
- Order needed hardware and software.
- Install and configure servers and OS software.
- Set up remote access (VPN if possible) for Cogsdale users.

Cogsdale Deliverables

- Technical Infrastructure document

4.1.3 Project Initiation

Project Initiation describes the collaboration between the **Client** and **Cogsdale** to begin the project.

Cogsdale and DBE Activities

Upon execution of the contract between the **Client** and **Cogsdale**, the **Cogsdale** team will initiate the project, and start preparation and mobilization of its resources in accordance with the requirements defined in this SOW. The current target date for the project start is April 21, 2014. Any changes to this date will be mutually agreed to by the **Client** and **Cogsdale**. Cogsdale, in conjunction with Major Services (DBE), will install the standard **CIS Solution** software product for use by the **Client** as an introduction to the **Cogsdale** products. **Cogsdale** will install its base product on an existing Server and create the following six (6) environments: Seed or Configuration, Development, Conversion, Test, Training and Production, as identified by the **Client**. A reasonably-sized sample dataset shall also be installed so that the applications will function consistent with a normal working environment. The activities during this phase will include the following:

- Prepare project infrastructure
  - Create remote access
  - Order software
  - Setup project team space and remote access
  - Receive and setup hardware
- Conduct a kickoff meeting onsite at the **Client**. The agenda shall include:
  - Introduction of the **Cogsdale** staff.
  - Re-introduction of **Cogsdale**.
  - Review of project goals.
  - Summary presentation of the overall project scope.
  - Summary overview of the functional areas to be covered by the software.
  - Review of project methodology.
  - Review of the proposed project schedule.
  - Determination of the functional areas to be discussed during the Analysis phase.
  - Discussion of data conversion needs and a proposed strategic approach.
  - Discussion of interface needs and a proposed strategic approach.
  - Discussion of project risks and potential mitigation strategies
- Meet with the **Client**'s Project Manager to:
  - Coordinate on project logistics.
  - Review project ground rules.
  - Establish the Project Team and reporting relationships.
  - Review Charter Document.
  - Define the Quality and Risk Management Plans.
  - Create the Business Process Change Plan.

  - Define the Communication Plan.
- Work with Information Services and Major Services (DBE) personnel to:
  - Schedule an appropriate time for the installation of the CIS Solution software.
  - Review all hardware and operating system technical requirements for the creation of application environments.
  - Conduct side-by-side instruction on how to install all software applications, data, client applications, and conduct any required installation configuration.
  - Install sample application database on server provided by the client.
  - Install software on client server(s) provided by the client.
  - Verify configuration of software and sample database to ensure it is functional.
  - Perform system manager training.

- Conduct System Overview training for the **Client** Team in order to familiarize them with the System's functionality as a basis for the Discovery sessions, which will take place later.

Client Activities

- Establish a Steering Committee.
- Identify and assign project team members.
- Support meeting and planning preparation activities.
- Ensure that all interested parties are invited to kick off presentation.
- Provide executive sponsorship at the kickoff meeting.
- Participate in Charter document discussion.
- Review and approve Charter document upon completion.
- Review and approve Risk Management plan
- Ensure a server or high-performance PC is available for installation of SQL Server, sample data and the **CIS Solution** server software.
- Participate in all installation activities.
- Participate in training.
- Establish remote access for **Cogsdale** team members.

Cogsdale and DBE Deliverables

- Kickoff meeting agenda
- Kickoff meeting PowerPoint presentation
- Project Charter document
- Project Plan – initial project schedule
- Communication Plan
- Project Workbook
- Quality and Risk Management Plan
- Business Process Change Plan
- Cutover Readiness Criteria documentation
- **CIS Solution** software licenses and sample data
- Software and data installation services
- System Installation Summary
- Standard CSM Report list

- Data Conversion Strategy
- Interface Strategy document
- Documentation/training materials to support training of Project Team
- Report of Initiation phase results
- Public Relations and Communication Campaign plan

Client Deliverables

- Project charter signoff
- Initiation phase report signoff
- Technical support for software installation
- Sign off on software installation
- Overview training signoff

Acceptance Criteria for Cogsdale Deliverables

- Software loaded and completely functional and usable.
- Completion of Project Team Overview Training.
- Updated Project Plan acceptable to the **Client.**

4.1.4 Analysis

The purpose of this phase is to gather the specific information needed to complete an initial configuration of the System that will be ready for functional testing. A **Cogsdale** team member will lead workshops involving appropriate Cogsdale project resources, DBE participants and Client business process experts to create a Detailed Walkthrough Report and to complete any necessary matrices and setup forms. These sessions and resulting documentation will be used to detail the initial configuration of the system throughout the workshop sessions. **Cogsdale, DBE Luther Speight** and **Client** will jointly identify and document the business processes. This documentation will be used to assist test plan finalization and training materials. **Cogsdale** will provide draft copies of the Detailed Walkthrough Report and other documentation on an agreed upon timeframe for review by **Client** to ensure accuracy of the information gathered.

During any **Cogsdale** offsite periods, the **Cogsdale** and **Client** team members will continue to share information via email, telephone, and web conferencing.

The **Cogsdale** configuration methodology also maintains complete documentation around all decisions. During this process, Business Requirement Documents (BRD) will be completed for all modifications, interfaces and reports. As well, the Data Conversion workshop occurs after the Discovery Session information has been gathered. This workshop is critical when determining the extent of the data conversion and the timing of these milestones. All three of these components (application, data and reports) must be considered in order to determine the true "Fit Gap" for this project.

Cogsdale and DBE Activities

- Prior to Detailed Walkthrough sessions
  - Develop Workshop schedule/agenda with input from the client
  - Prior to onsite interviews, **Cogsdale** staff will familiarize themselves with the client's legacy system using available material provided by the client, personal interviews, and other such information as needed
- Workshops

- Provide a refresher overview of the functionality in the CIS Solution, as well as a demonstration of how configuration and setup is performed
- Conduct workshops to discuss possible organizational changes as a result of implementing the new system, and how to manage them
- Conduct individual or group interviews for the following operational areas. The interviews will confirm current business processes, review standard configuration of the CIS Solution in relation to these processes, and identify modifications or configuration changes that are needed, or that could be mitigated by the adoption of recommended business practice changes.
  - Customer Service
  - Service Orders and Mobile work
  - Meters
  - Billing
  - Accounting, Payments, and Collections
  - Bill template design and presentment
  - IVR/ACD
- Conduct additional interviews to define requirements for:
  - **Data conversion** – determine the type and amount of data to be converted, how the data will be extracted, how the data will be mapped to the new data structures, any data cleansing that is expected, and the overall migration plan.
  - **Interfaces** – determine the type and amount of information to be exchanged, the method of exchanging the data, any special processing that is needed, and a schedule for delivery of both sides of the interfaces.
  - **Functional modifications** – the discovery sessions within the operational areas will determine whether any modifications are needed to support their business needs; these sessions will focus more on regulatory and business policies that are identified as more unique to the **Client** based on industry best practices.
  - **Custom reports** – review the reports that are needed in the operational areas, determine which reports are already available within the CIS Solution, and identify which reports need to be modified, or newly written, to meet business needs.

- After Discovery sessions
  - Incorporate each meeting's findings into Detailed Walkthrough Report
  - Present Detailed Walkthrough Report draft
  - Review recommended hardware and software requirements to determine if Discovery has impacted expected operational capabilities
  - Review sample test plans, modify for applicability to the Client, and submit to Client
  - Conduct Detailed Walkthrough Report review session
  - Update Detailed Walkthrough Report as needed
  - Present final Detailed Walkthrough Report for approval
  - Review and update project plan to reflect final approved Detailed Walkthrough Report
  -

Client Activities

- Prior to each session, the **Client** will research and come prepared with current policy, procedures, and expected system outcomes for the given topic
- Ensure that required client staff attend appropriate sessions

Cogsdale and DBE Deliverables

- Draft and final interview schedules
- Draft Detailed Walkthrough Report confirming, but not limited to, the following areas:
  - Where the proposed software meets the requirements of the **Client** without customizations
  - What software customizations are required
  - Where customizations are necessary, alternative solutions to customization that may be more cost effective
  - Which items are considered out of scope, and quotes for providing the additional functionality
  - What data conversion is needed
  - What interfaces need to be developed
  - What reports need to be modified or written
  - What guidelines are established concerning the completion of the project
- Final Detailed Walkthrough Report, ready for approval
- Initial test plans
- Updated project plan

Client Deliverables

- All existing process flows/maps that might apply to this phase
- Sample reports showing data requirements and provide any additional documents such as screen shots, by-laws, etc., as required during the workshops
- Participation in workshop meetings
- Approval of Detailed Walkthrough Report

Acceptance Criteria for Cogsdale Deliverables

- Interview schedule allows for **Client** staff attendance
- Draft Detailed Walkthrough Report is delivered
- Final Detailed Walkthrough Report is delivered
- Updated project plan is delivered

4.1.5 Assembly - Design - Customization

As part of the Assembly phase, Design – Customization will consist of completing the software development plan and will document in detail how the exact customization features and interface requirements that were outlined and approved in the detailed documentation of the Analysis phase will be developed. During this phase, extensive consultation will be carried out between the interested parties to ensure that the final product meets expectations. Involvement of client staff will be necessary for this consultation to be successful.

After Client review of detail specification documents and sample software screens, the programming and development department of **Cogsdale** will complete the necessary modifications and additions, followed by extensive quality assurance testing. Depending on the exact nature and extent of the custom programming, it will usually be possible to begin

the software implementation before the custom programming is completed and delivered. This is a decision that will be made by the project management team after detailing the custom requirements and assessing their impact on the existing core product.

It is the process of Cogsdale that any custom development, performed by Cogsdale, for a Client, once tested and accepted by the Client, is rolled into the main code base. This process provides the following benefits to Cogsdale's clients:

- Eliminates upgrade issues as any modifications are supported in future builds.
- Allows customers to take advantage of modifications requested by the Cogsdale User Community.
-

Information Delivery is comprised of several reporting needs from bill print formats to displaying metrics. This phase begins during the Analysis – Detailed Walkthrough portion of the implementation and will be completed before end user training begins.

- Bill Print - a **Cogsdale** Report Developer will work with appropriate **Client** project team members to analyze and document all the requirements and specifications for the bill print. The bill extract will be developed using SQL Stored procedures. The bill will be tested using the Bill QA process during integrated testing, functional testing and Acceptance Testing. The assumption of this Statement of Work is that the bills will be printed in a manner that can be printed by the **Client** or a bill presenter.
  Cogsdale will develop custom bill print layouts such that it can accommodate both single and multi-page bills. Support of miscellaneous bill formats, for example billing Adjustments and Cancel/Rebill billing formats will be provided.
- Service Order - **Cogsdale** will gather requirements for developing **Client**'s custom Service Order. A **Cogsdale** Report Developer will code and deliver the service order for **Client** testing. The service order will be tested using the Service Order QA process during integrated testing.
- Letters –Report deliverables (letters) will be customized by a **Cogsdale** Report Developer with respect to the **Client** logo, contact information, return address and text. **Client** will supply the logo, contact information, return address, and text to **Cogsdale** for customization of the letters. Some examples include:
  - Welcome Letter
  - Delinquent
  - Disconnection / Cut-off Notice
  - Returned Check
  - Payment Arrangement
  - Backflow Prevention Testing
  - Water Availability

  A **Cogsdale** Report Developer will demonstrate how text can be modified and will facilitate knowledge transfer to **Client** individuals assigned to this task.
- Reports - A **Cogsdale** Report Developer will work with appropriate **Client** project team members to modify existing reports, or write new reports, as identified during the Analysis phase. **Cogsdale** Report Writer Administrator training will be provided for the **Client** identified team members who will be responsible for administering the Report Writer reporting tool application.

  Since some report requests may best be handled through SmartList queries, **Cogsdale** will provide training for query tool setup and administration. The SmartList query tool is an Ad Hoc reporting tool used to access and manipulate Information

Objects. Information Objects are predetermined groupings of data that allow non-technical users access to system data without the need to understand the complexities of the underlying data model. **Cogsdale** provides a core set of Information Objects.

- Dashboard - A **Cogsdale** Report Developer will work with appropriate **Client** project team members to provide administration and developer training to specified **Client** individuals. Business Analyzer and the Cogsdale CSM home page will be used to develop dashboards in the **CIS Solution** to meet the specific needs of the **Client**. Dashboards will include dynamic, interactive data visualization and analysis capabilities, such as drill-down, filter and detailed Key Performance Indicators which are comprised of charts, gauges, maps, card view lists and hierarchical lists. Various Key Performance Indicators ("KPI's") and Business Intelligence Metrics will be developed.
-

Based on the workshops and interviews during the earlier phases, **Cogsdale** will develop a security plan identifying roles, responsibilities and access to the system. Security shall be identified for modules, tables, or data fields, as appropriate. Security shall be role based and proper security setup and functions will be tested during User Acceptance Testing.

Upon completion of the customization, **Cogsdale** will submit the changes to the **Client** for their review of conformance to the functional requirements. This will be done through a workshop prior to the functional testing of the application. The purpose of this workshop is to ensure that the look and feel of the modifications is consistent with the intent of the statement of work. Upon completion and acceptance, the client will sign off on the look and feel of the modifications (functional aspects of the changes is covered under the testing section).

Cogsdale and DBE Activities

- If necessary, provide quote for customizations that are not in scope
- Confirm information regarding customization specifics
- Confirm information regarding interface requirements
- Confirm information regarding report requirements
- Produce detailed specification documents
- Obtain detailed specification document sign-offs
- Update project plan schedule based on any changes identified
- Update test plans and to-be process documentation as required
- Develop and test all customizations
- Conduct a customization review workshop
- Deliver all customizations for testing

Client Activities

- Participate in the detailed specifications definition
- Review and sign off of the detailed specification documents
- Respond to queries, if/as required
- Participate in workshop to review completed customizations

Cogsdale Deliverables

- Customization quote for out of scope items
- Draft detailed specification documents

- Finalized detailed specification documents
- All customizations
- System Security Plan
- Updated project plan
- Updated test plans

Client Deliverables

- All existing process flows/maps that might apply to the customizations
- Sample reports showing requirements
- Answers to any technical, data, or functional questions needed by **Cogsdale**
- Appropriate approvals

4.1.6 Assembly - Software Configuration

As part of the Assembly phase, the software configuration involves the following pieces:

Data Structure

A data structure simply means the codes / numbers that will be used in the system to differentiate each field. Examples are GL account number, customer and location numbers, inventory number, , et cetera. Forethought and planning in this phase of the implementation means the difference between a data collection system and a management information system. It is imperative that all data structures be rationalized before initializing the software and beginning data conversion. Completing this phase effectively requires a thorough understanding of how the system is to work.

Software Setup

This phase involves the setup and configuration of the various modules as they are implemented. This includes configuring the various setup options of each module to meet the **Client**'s operating requirements.

Cogsdale and DBE Activities

- Verify, in consultation with client, the data structure
- Setup and configure the software based on customer input and the Detailed Walkthrough Report.
- Make any required updates to the test plan, taking into account all customizations to be developed and implemented.

Client Activities

- Provide additional information as requested so as to ensure an accurate understanding of the functionality, as needed.
- Participate in developing the Test Plan.

Cogsdale and DBE Deliverables

- Configured software, including but not limited to screen layout, pop-up menus, user interfaces, behind the scenes modifications, system security, etc.
- Ad hoc presentations to stakeholders, as needed, to resolve issues
- System Security Plan implementation
- System setup document detailing configuration option selections, code table changes, and customized setup changes.
- Comprehensive Test Plan.

Client Deliverables

- Sign-off on screen layouts, popup menus, system security
- Sign-off on Test Plan

Acceptance Criteria for Cogsdale Deliverables

- The newly configured Software must meet or exceed the expectations set within the Detailed Walkthrough document, Functional Matrix, this Statement of Work, and the other Contract Documents
- The Test Plan should cover all functional and acceptance testing, and include a proposed schedule

4.1.7 Assembly - Setup - Data Conversion

The Assembly phase also includes work for data conversion. A key element of any implementation of the **CIS Solution** is the entry of Master Records and historical information. A quality data conversion is a major pillar to a successful implementation. In order to ensure the integrity of the conversion, **Cogsdale**'s methodology provides for a multilayered series of audits and verifications.

Cogsdale and DBE Activities

- Create a Data Conversion Plan based on information provided in the Contract Documents and the Analysis – Detailed Walkthrough. This will include a detailed mapping of data fields between the source databases and the **CIS Solution**.
- Based on the Data Conversion plan, develop of the Data Migration plan
  - identify how and what data will be cleaned prior to conversion; **Cogsdale** will use every effort to utilize tools to minimize manual cleansing
  - identify and develop any scripts to be used to clean the data during migration
  - identify any data that will be cleaned subsequent to the data conversion
  - identify any standard fields where data will be auto-generated or predefined
  - identify testing that will be done on the **Cogsdale** system after each conversion to insure that the data will work within the **Cogsdale** system
- Provide data templates with list of fields.
- Extract and prepare data for import.
- Perform data conversions:
  - Based on the Data Conversion Plan and the Data Migration Plan the extraction routines will be developed
    - Data Extraction 1: The first conversion will include converting a subset of data into the configured **Cogsdale** software to test the conversion routines.
    - Data Extraction 2: A full set of data will be converted for data verification testing. . The results of this testing will be documented and used to determine ff the data conversion process needs to be modified or if additional data cleanses needs to occur to produce acceptable data,.
    - Data Extraction 3: A second full set of data will be converted.
  - Conduct testing between each conversion with the assistance of the **Client**
  - Validation of legacy output data to determine if the data is valid for the System
  - Randomized sampling verifications on points of failures

- Control hash total comparisons between source provided and target conversions
- Rigorous financial reconciliation of the conversion
- Rigorous variance analysis between source-provided and target – emphasis on explainable variance.

Client Activities

- Provide input into Data Migration Plan
- Perform data cleansing on data as identified in the data conversion plan
- Assist in testing the converted data in the **Cogsdale** system.

Cogsdale and DBE Deliverables

- Data Conversion Plan
- Data Migration Plan
- Data extraction templates
- Scripts to be used in the data conversion
- Converted data

Client Deliverables

- Cleansed data as defined in the data conversion plan
- Sign off on Data Conversion Plan
- Sign off on Data Migration Plan
- Sign off on Data Testing Plan

4.1.8 Assembly - Training Analysis & Planning

This part of the Assembly phase addresses whom to train, how training will be conducted, logistics, and training topics. The end-user training will be performed by **Cogsdale** staff, with the assistance of one or more client functional resources during the Acceptance and Pre Go Live phases.

Cogsdale and DBE Activities

- Develop a Training Plan
  A fundamental factor in the success of this implementation is Client's ability to manage the change process – transitioning from the legacy system to the CIS Solution. The primary 'tool' in this transition is the Training Plan. From the end users' perspective, the mutual goal is to make the transition to the new system smooth, with a seamless, widespread adoption across all user levels regardless of function or computer experience.
  The Training Plan provides a blueprint for the depth and timeline of the training deployed, based on Client's assessment of the usability of the System in conjunction with the learning requirements of the user groups at the site.
- Determine topics for training by group, and determine the number of and types of courses needed. As a minimum the following types of training will be included:
  - System Manager (Microsoft Dynamics GP 2013)
  - Initial training for project team
  - Customer Service Activities
  - Billing Activities
  - Equipment Activities
  - Delinquent Activities

  - System Administration
  - Work Order/Service Request activities
- Create Training Syllabus - A Training Syllabus will be developed for each proposed course. Syllabus and actual training materials will be customized to fit the Client's business processes. The Syllabus will list the course objectives and describe each point of functionality to be addressed with the students.
- Determine instructor resource needs to include classroom materials, data for student exercises, learning aids (charts, etc.)
- Determine number of training classrooms and course schedules
- Collaborate with the client to produce a separate training database and strategy to refresh the data, as needed, to support training.
  - Initial training will be provided based on sample data provided by **Cogsdale**
  - Final Training will done based on data converted from the legacy system
- Conduct Training Sessions with Students per Training Plan
- Monitor Student Progress on Subject Matter
- Report to Management any Training Deficiencies

Client Activities

- Conduct audience analysis by gaining an understanding of which groups of staff require training
- Prepare training classrooms, provide training equipment
- Complete e-learning as outlined in the Training Plan
- Schedule staff, as needed
- Provide functional resources
- Complete E-learning as outlined in the Project Plan prior to the various setup and training sessions
- Assist in preparing Training database

Cogsdale and DBE Deliverables

- Training plan
- Training material
- Qualified Instructors sufficient to accomplish training plan
  - Instructors shall be proficient in the use of the **Cogsdale** product and developed integrations
  - Instructors shall be proficient in adult education techniques
- Training database

Client Deliverables

- Audience Analysis/participant list
- Classrooms, computers and other logistics support
- Training attendance sign-off

Acceptance Criteria for Cogsdale Deliverables

- Training plan covers all staff, is comprehensive, and is achievable in the time allotted

4.1.9 Acceptance - System Testing and Cutover

The Acceptance phase's primary focus is on testing and training. The key to mitigating risk and gain user confidence in the **CIS Solution** is through systematic and thorough testing and

training. **Cogsdale**'s testing methodology adds a layer of thoroughness at each step, building on the success of the previous steps.
The Testing Methodology is based on the following steps:

- Test Planning

  Fundamental to the testing methodology is a jointly developed detailed Functional Test Plan and Integrated Test Plan. Although the project plan provides an outline of functional and integrated testing for resource allocation and scheduling, detailed test plans must be developed before testing commences. These detailed plans provide a week-by-week outline of the major tasks and the resources responsible for them, formulating our roadmap.

- Functional Testing
  - Screen Testing
  - Primary Scenarios
  - Secondary Scenarios

The main purpose of the Functional Testing step is to establish that decisions made during the assembly phase of the project will be in line with **Client**'s business requirements. Functional testing will take place on clean, controlled data that is created specifically for the purpose of testing a business process scenario. This allows the project team to isolate and test the configuration prior to moving toward integrated testing, where converted data will be introduced.

Functional Testing utilizes scripted scenarios that are common to most **Cogsdale** utility clients. Data (accounts, persons, locations, etc.) is entered into the system and verified prior to the testing. This ensures the initial testing of the configuration decisions is on "clean" data. To facilitate functional testing, **Cogsdale** has developed a number of functional testing scenarios that utilize **CIS Solution** functionality as it pertains to system configuration. The scenarios are broken into two categories:

- Primary Scenarios - These scenarios involve functionality relating to the core business processes of the **CIS Solution**. These primary scenarios perform the most common end-user and back end functionality, such as move-ins, move-outs, billing and collections. These scenarios also access the key database tables, are common for most client configurations, access a wide breadth of major functionality, and test business processes of many different utility departments. Finally, the primary scenarios use date changes as a key parameter, result in easy to determine pass/fail outcomes, and provide the tester with validation data and process log information while testing. In short, these all-encompassing scenarios are the most effective way to 'touch' the application in its entirety, and identify any major configuration or non-fit issues as early as possible. A subset of Functional Testing is Screen Testing, where scenarios execute the function of entry, storage, and retrieval of base functions. Screen Testing is embedded within the bulk of the scenarios.
- Secondary Scenarios - These scenarios involve testing a broader spectrum of functionality in the **CIS Solution**. These scenarios build on the functionality tested using the primary scenarios. Through primary scenario testing, testers will have gained a deeper knowledge of the available functionality and learned testing techniques that will assist them to test more complex scenarios. The scenarios are designed to test unique, client-specific functionality, infrequent or less common processes, and derivatives or combinations of the primary scenarios. **Cogsdale** and

Client must jointly review the library of available scenarios to determine whether or not they are needed for functional testing on the implementation project.

- Data Conversion Validation
- Integrated Testing
  - Core Integrated Testing
  - Integrated Test Scenarios
  - Financial Scenarios

The goal of Integrated Testing is to ensure that the **CIS Solution** is ready for production. **Cogsdale**'s methodology recommends the following three fundamental principles in order to optimize both time and resources throughout Integrated Testing:

- Recreate a realistic "production-like" environment. Using converted data, choose a subset of data and scenarios to represent the production system. This will typically consist of running billing cycles that provide the necessary cross section defined in our risk tolerance analysis. In creating the 'pseudo-production' environment, we ensure all components of the production system have been identified and incorporated into the Integrated Test Plan. In addition to the system itself, this includes the procedures and processes that need to be in place for the system to run properly, the production reports that supplement the system, the documentation and training of the operations personnel, and all interfaces to other internal and/or external systems.
- Manage the focus and momentum of Integrated Testing. Ensure all team members are clear on their activities, when they are supposed to be doing them, and whether or not they have completed their task(s) successfully.
- Ensure all activities move the team toward our final goal – successful Go-Live. The activities of all team members and project issues must be managed closely. Key timely metrics for testing progress and issue resolution must be established and monitored closely. Deviations from the plan will be identified by reviewing testing activity metrics frequently and adjusting the plan and strategies accordingly when applicable

Cogsdale uses a structured non-linear approach towards Integrated Testing to ensure the previously described principles are followed. This approach involves having multiple database instances and multiple groups of test team members performing key integrated testing activities in these five main areas:

- Core integrated testing which tests major batch processes;
- Financial scenarios which focus on validating financial transactions;
- Integrated testing scenarios inclusive of primary and secondary scenarios;
- Unit testing interfaces and modifications;
- Unit testing reports and bill prints.

Each cycle of testing takes the system one step closer to production. Interfaces, full data conversion, production reports, and volume readiness are tested in this phase. From Integrated Testing, system metrics are derived to ensure the system is production ready.

- Cycle Parallel
  - Bill to Bill Comparisons

This stream of activities is where the project team will run through the billing process, in stages. Initially, this is rapidly run billing, on converted data, by simply estimating reads and validating charges and analyzing errors. These progresses in complexity until the meter

reading file is uploaded from the legacy system and charges compared to the legacy system. The bill-to-bill comparison is intended to verify that the **CIS Solution** is performing the correct calculations on new bills. This process will be run on a cycle by cycle basis and will progress through iterations that refine the process. The first iteration focuses on quality and issues, the second iteration focuses on speed and timing, and all additional iterations are designed to refine quality and timing in tandem.

Validation of billing accuracy is achieved through a comparison of bill results to the legacy system. Multiple iterations of this process may be required, and multiple and different meter read cycles will be utilized. The bill comparison process will be automated where possible.

- User Acceptance Testing

User Acceptance Testing verifies the operation of the full System in a "Day in the Life" format. This testing is in preparation for CIS Solution's use as the production system for the Client. Base functionality, modifications, interfaces, data conversion, and reporting are all tested to ensure the System meets the Client's requirements.

- Performance Testing

Performance Testing ensures that the **CIS Solution** and the software environment are properly configured to meet a production level of realistic data volume. In addition, the **Cogsdale** Application Consultants will perform tests to ensure that all business processes are running within acceptable timeframes for production readiness.

To properly simulate the production environment, processes are run during normal business hours on selected cycles. Using software simulation tools provided by Cogsdale, scripts are run to simulate a realistic end-user load.

During this phase various data conversions are preformed to support the testing process and to provide additional validation of the conversion routines. Between each extract, reported conversion errors are addressed and fixed, then retested on the subsequent extract.

- Data Extraction 4 – Functional Testing
- Data Extraction 5 – Integration testing
- Data Extraction 6 – User Acceptance Testing

End user training

The end-user training will be performed by **Cogsdale** staff, with the assistance of one or more client functional resources during the Acceptance and Pre Go Live phases. The **Cogsdale** instructor is needed to supply the detailed knowledge of the applications being taught, and the client functional resource is needed to bring the detailed knowledge of **Client** processes and policy to the classroom. The **Cogsdale** instructor will lead the instruction with the client resource attending to clarify any process or procedure questions specific to their environment. Additional benefits for **Client** having team members supporting the training are:

- **Credibility – Client** representatives will have greater credibility since their process knowledge and experiences will be much greater.
- **Familiarity – Client** staff will have greater familiarity of the individual trainees, and awareness of individual requirements and nuances.
- **On-going** – Training is an on-going need and responsibility, and therefore to have internal staff trained is both expedient and cost effective. As business changes and

functionality are added, there will be a need to continually develop in-house training expertise.

Cogsdale and DBE Activities

- Finalize the Test Plan.
- Prepare the System for Functional Testing, including data conversion.
- Prepare the System for Integrated Testing, including data conversion and installation of all modifications, interfaces, and custom reports.
- Review test scripts needed for Integrated and User Acceptance Testing.
- Review the results from the Integrated Testing and resolve any issues that are found.
- Review the results from the User Acceptance Testing and resolve any issues that are found.
- Assist in Performance Testing.
- Conduct end user training.

Client Activities

- Conduct the Functional Testing. Log and report any issues.
- Assist with the test scripts needed for Integrated and User Acceptance Testing.
- Conduct the Integrated Testing. Log and report any issues.
- Conduct user acceptance testing. Log and report any issues.
- Finalize go-live and contingency plans.
- Conduct the Performance Testing.
- Assist in the provision of end user training.

Cogsdale Deliverables

- Testing plan
- Sample test scripts
- System that is configured and ready for Functional Testing.
- Corrections for any issues found during Functional Testing.
- System that is ready for Integrated Testing.
- Corrections for any issues found during Integrated Testing
- System that is ready for User Acceptance Testing.
- Corrections for any issues found during User Acceptance Testing.
- Go-live cutover plan.
- Go-live contingency plan.
- End user training.

Client Deliverables

- Completed test scripts.
- Performance of the various steps of testing.
- Logs of issues found during the various steps of testing.
- Participation in go-live cutover and contingency planning.
- Participation in end user training.

Acceptance Criteria for Cogsdale Deliverables

- Testing plan includes all customizations, is comprehensive, and is achievable in the time allotted

- All issues found during testing are corrected, or an acceptable workaround has been jointly agreed to by both **Client** and **Cogsdale**
- Go-live cutover and contingency plans reflect experience gained during mock cutovers
- End user training is completed

4.1.10 Pre Go Live - Production Readiness Evaluation

The production readiness phase is the point at which **Client** and **Cogsdale** decide whether all critical pieces are in place in order to turn the system over to production. This phase includes a production readiness evaluation, cutover planning, remaining end user training, and mock go live.

Cogsdale and **Client** will develop a detailed Cutover Plan prior to the proposed Go-live date. **Cogsdale** and **Client** will stage all aspects of the system in preparation for production cutover, including any manual conversion activities that are required.

The Production Readiness phase focuses on four critical areas:

1. **Application Readiness.** Is the application tested and ready for production? This includes modifications, interfaces, and reports needed to run in full operations.
2. **Data Readiness.** Is the data conversion ready for operations? Have all data cleansing issues been resolved or planned for during the cutover period?
3. **Process Readiness.** Have the business processes been reviewed? Have all business process-reengineering tasks been completed and made ready for operations?
4. **Resource Readiness.** Are all the end-users trained? Is **Client**'s staff trained to deal with problem-solving during the business cycle?

A checklist of issues pertaining to the achievement of operational stability is developed. This checklist which will include a post conversion "fix" library, a "workaround" library, and one time activity library, is based on the experiences gathered from other **Cogsdale** production cutovers, an on-going evaluation of best practices in the industry, and specific issues that arose during the configuration and testing of the software for **Client**.

An assessment of this checklist and evaluation of the business model provides enough information to determine "production readiness". If so, a cutover plan is finalized and the cutover to production takes place.

At this point any additional end-user training will be performed by **Cogsdale** staff, with the assistance of one or more client functional resources during the Acceptance and Pre Go Live phases.

Mock Cutover(s)

A minimum of two (2) trial cutovers are performed. This allows the project team to practice the procedures necessary for go-live, and to ensure that all processing that will be needed, both automated and manual, are clearly defined, and that responsibilities are clearly understood. Additionally, as a result of the experience gained during the mock cutovers, cutover plans can be finalized and contingency planning can be determined.

Cogsdale and DBE Activities

- Complete the readiness checklist.
- Complete mock go lives.

- Assist in preparing the System for go-live cutover.
- Provide refresher and additional end user training.
- Notify customers, vendors, and other interested parties of the go-live planned date

Client Activities

- Participate in ensuring System is ready for go-live cutover.
- Prepare CSRs and other personnel for go-live.
- Prepare the System for go-live cutover.
- Participate in mock go lives
- Log and report any issues.

Cogsdale Deliverables

- Readiness checklist (Cutover Plan)

Client Deliverables

- Sign off on mock go lives
- Participate in training

Acceptance Criteria for Cogsdale Deliverables

- Mock go live is successful
- Contingency plan complete
- Go Live Readiness plan complete

4.1.11 Cut-over

The cut-over phase includes the system shutdown time when the cut-over to production occurs. The majority of this work is performed when the office is closed. During this time, the final data conversion is completed, any manual processes identified in the cut-over plan are completed, and validation is performed to ensure everything is in place to open the office.

Cogsdale and DBE Activities

- Provide onsite assistance during go-live cutover
- Resolve any issues that arise during go-live cutover

Client Activities

- Conduct the go-live cutover
- Log and report any issues

Cogsdale and DBE Deliverables

- Go-live cutover assistance
- Corrections for any issues found during go-live cut-over

Client Deliverables

- Completion of go-live cut-over
- Logs of issues found during go-live cut-over

Acceptance Criteria for Cogsdale Deliverables

- Go-live cutover is successful and the CIS Solution is operational as Client's production system supporting business operations

- All issues found during go-live cut-over are corrected, or an acceptable workaround has been jointly agreed to by both Client and Cogsdale

4.1.12 Post Go Live Support

The purpose of this phase is to ensure complete and successful transfer to the new customer information system and provide **Client** with direct access to the implementation team personnel, before migrating to standard Maintenance and Support. When the system is in production, the **Cogsdale** implementation team will stay onsite for forty-two (42) calendar days, to work hand-in-hand with your production staff to ensure the systems are well understood and functioning properly. After this period of transition, a smaller support team (Primary Application Consultant, Technical Consultant, and Business Consultant) will remain onsite for an additional sixty (60) calendar days to assist with additional processing and follow-up activities. During this period, **Cogsdale** Technical, Development, and Systems Integration resources will also support the **Cogsdale** team remotely.

This phase will encompass three complete monthly billing cycles estimated to cover an estimated three month timeframe. This support period is chosen to span three months because issues that do not regularly arise in the first or second month of production after cut-over, generally surface by the third month. Despite best efforts, new users often make system mistakes that are not apparent until the next billing period. During this phase, while the system is set up and running, periodic reports will be generated to verify the accuracy of the setup, customer information, posting flows, and system calculations.

Cogsdale will perform the following types of activities:

- Managing the batch cycle and training the **Client** system administrator
- Managing and resolving all application issues (configuration, training and defects, etc.)
- Resolution of all post-production issues as well as any go-live deferred functionality
- Consulting on the disaster recovery process
- Providing support of the business process review activities and how to best achieve the desired improvements with the **Cogsdale** system

At the end of this phase, the **Cogsdale** Project Manager prepares an Operations Audit and a 'handoff' to **Cogsdale** Support Operations. The audit report outlines all outstanding issues, operational risks, and relevant action items to ensure the stability of your operations. **Cogsdale** and **Client** will review and signoff on the audit report before it is submitted.

At the end of this phase, all project deliverables will have been met and close out documentation will be completed.

Cogsdale and DBE Activities

- One-on-one system assistance
- Small group training, as needed
- Trouble-shooting issues, failures, and questions
- Management reporting
- Any reasonable activity needed to improve the productivity of **Client** while using the new system
- Preparation of Audit reports
- Introductory meeting with **Cogsdale** Support Desk
- Review of Support Desk transition document

Client Activities

- Log and report any inconsistencies or issues when operating the system
- Review and approve the Audit report
- Delegate Support Desk liaison
- Participate in the turnover to Support

Cogsdale Deliverables

- Audit report
- Transition to Support document
- Turnover to Support
- Project Close Out document

Client Deliverables

- Approved Audit report
- Name and contact information of Support Desk liaison
- Sign off on Project Close Out

Acceptance Criteria for Cogsdale Deliverables

- Audit report correctly identifies all outstanding items or issues
- All project deliverables in the SOW delivered.
- Project Close-out

4.2 Functional Matrix

The Functional Matrix, in conjunction with this SOW, the "to be" Business Process Documents as developed by the Client, and all other contract documents, defines the Scope of this project. The Functional Matrix and SOW will be used as the basis for design, configuration, development, testing and training activities for the project. All items listed in the SOW and the Functional Matrix is in Scope unless the requirement is specifically listed as not being in scope. The SOW, Detailed Walkthrough document, Functional Matrix, and authorized contract modifications will be used as controlling documents for the product and services Warranty.

4.3 System Interfaces

The preliminary description for the system interfaces between the **Client**'s applications (and associated software) and **Cogsdale**'s other business systems can be found in Section 8.4. System Interface Specifications.

The cost details of the services and products covered under this SOW can be found in Cogsdale's response to Client's RFP.

5 Project Management Methodology

Cogsdale uses a highly-structured and layered project management methodology, which relies on detailed and complete project plans, to determine who is working on what tasks, and when, throughout the life of the project. Central to **Cogsdale**'s philosophy is maintaining strong communication throughout the teams, setting expectations early, facilitating and coaching as required and monitoring progress.

Cogsdale's methodology is the 'back bone' of the implementation; however, it is understood that 'one size does not fit all'. **Cogsdale** takes a consultative and pragmatic approach to ensure that the methodology 'fits' **Client**'s organization. Utilizing the fundamentals and techniques associated with our industry experience, **Cogsdale** will work closely with **Client** in refining the methodology to best suit the **Client**.

Cogsdale will provide a dedicated Project Manager throughout the life of the project who will work directly with **Client**'s Project Manager and the joint team to ensure that all project responsibilities are met and milestones achieved.

5.1 Project Plan

Cogsdale recommends strong proactive project management—managing, monitoring and addressing issues early. Project progress must be charted rigorously to adapt the plan for possible opportunities to shorten the schedule.

Cogsdale's base philosophy is to plan not for best- or worst-case, but for an average implementation timeframe, scaled to fit the size of the project. In the early stages of the project, there are often opportunities to 'save' time which may then be used at different, more critical junctures of the project.

The project plan will cover the whole project; however, **Cogsdale** updates the project plan on a weekly basis, or an interval as agreed to by both **Client** and **Cogsdale** Project Managers. This ensures a reflection of project activities, which allows everyone to have greater clarity of project tasks and potential scheduling concerns. Should a milestone or deliverable 'slip', there must be a mitigation strategy in place that will bring the plan 'back on schedule'. Different ways of bringing the plan back on schedule are to look for opportunities to either move or shorten future tasks, or if possible, utilize slack. The project plan will be reviewed with **Client** on a weekly basis, or on an interval agreed to by both project managers. Any changes will be mutually agreed upon with both project managers.

Cogsdale and **Client** must monitor the adjustments to determine that we are actually 'back on schedule' and "on scope and budget". The level of action is dependent on the event and the actual importance of the dependencies. The underlying approach is proactive planning, coupled with rigorous monitoring and timely corrective actions.

Cogsdale strongly stresses that all planning must be jointly performed and communicated by the project managers of both teams.

In summary, the Project Management function is critical in ensuring the project is completed on time. There are a number of policies **Cogsdale** enforces to ensure this is achieved:

- Project Plans must include clear objective milestones to determine that project progress is real and accurate. These milestones are identified and agreed upon between the **Client** and **Cogsdale**. The milestones represent the project points that must be reached for the overall project objectives to be achieved.
- Project Plans must have baselines approved and adjusted through the Change Control process. This ensures all changes to the baseline are tracked and justified.
- Project changes must be approved and reflected in the project schedule. In other words, the projects must always reflect the latest and most accurate projection on completion time and remaining effort.
- Project Plans must contain Resource Staffing for both **Client** and **Cogsdale** including estimated effort and percent complete, so it is clear if project tasks are going over-time. **Cogsdale** uses the latest version of MS Project to manage the project plans. The current Project Plan will be made visible to the total project team.
- Project Status Reports must accurately reflect the achievement of the project with respect to the project plan. Project slippage is identified early when there are still opportunities to make adjustments.
- Project schedules include time to allow the project to recover from unexpected problems such as illnesses or missed work. For example, there is a month between the go-live decision and the cut-over weekend. This allows for completion of tasks that might have slipped.
-

Finally, the best assurance of meeting project time, scope, and budget goals is following common project management principles.

5.2 Communications

The **Cogsdale** Project Manager, working in conjunction with the **Client** Project Manager, will compile status reports for distribution to both **Client** and **Cogsdale** management. Weekly meetings will be held to review overall status, schedule, and open issues noted in the status report.

Communication Method	**Frequency**	**Schedule**	**Distribution List/ Attendees**
Status Meetings	Weekly		<**Client** PM>, <**Cogsdale** PM>
Project Status Reports	Weekly		<**Client** PM>, <**Cogsdale** PM>
Project Plan Updates	Weekly		<**Client** PM>, <**Cogsdale** PM>
Project Workbook Updates (Risk Log, Issue Log, Action Items)	Ongoing		<**Client** PM>, <**Cogsdale** PM>

5.3 Risk Management

The following procedure will be used to manage Project issues and risks:

- Identify and document
- Assess impact and prioritize
- Assign responsibility
- Monitor and report progress
- Communicate issue resolution

Conflict is inevitable with a project of this magnitude and complexity. **Cogsdale** and **Client** must have a clear conflict resolution process—mutually agreed upon and understood before conflicts arise. The plan must be discussed early in the project and documented accordingly.

Cogsdale recommends three levels of conflict escalation, starting from the bottom up:

- Executive
- Director
- Project Managers

One representative from **Cogsdale** and one representative from **Client** are designated at each level. All issues must be in written form – providing details, impacts and alternative resolutions. Decisions are based on project documents, such as the contract, and SOW. Basic points:

- Issues must be raised through the respective Project Managers
- Issues must be entered into the issues log and are not considered 'logged' unless this is done

On a weekly basis, the Project Managers will meet, either in person or via a conference call, to review the status of the outstanding issues. The timing of the meeting must be consistent. The frequency of the meetings will be dictated by the number of outstanding issues and the phase of the project; however, we suggest the frequency should be no less than on a weekly basis.

5.4 Change Management

During the project either party may request, in writing, additions, deletions, or modifications to the services described in this SOW ("change"). **Cogsdale** shall have no obligation to commence work in connection with any change until the estimated cost and schedule impact of the change is agreed upon in a written Change Order signed in accordance with the contract documents. Any and all changes to the SOW must be agreed upon by the parties and evidenced in a written instrument (contract modification), signed by the parties' authorized representatives. Any changes that do not satisfy this requirement shall be deemed unauthorized, void, and unenforceable.

Upon a request for a change, **Cogsdale** shall submit a Change Request Form describing the change, including the estimated impact of the change on the project schedule, fees, and expenses. Both parties agree to follow this process and to use the Change Request Form.

- Identify and document
- Assess impact and prioritize
- Estimate required effort
- Approve / Disapprove
- Assign responsibility
- Monitor and report progress
- Communicate change resolution
- Complete any required schedule updates

See section 8.5 in the Appendices for the sample Change Request Form.

5.5 Organizational Change

Change management has been well documented by many sources over the years. Regardless of the source, there are common key methodology factors attributable to successful change management, which **Cogsdale** incorporates into its project management. **Cogsdale** goes

beyond that, and focuses on the people, and providing practical tools to remove the barriers created by fears and personal stressors. The success of any initiative is the people involved and how they implement the change methodology. To address the Change Management needs of this **Client**, **Cogsdale** has partnered with the DGAI team.

Change must involve the people and not be imposed upon the people. The DGAI team is cognizant of expressions such as "mindset change, changing attitudes, changing people's mindset". These are indicative of imposing change rather than embracing the change. There are several stages to change; people see feel then change. DGAI will use this model in which to work with the Sewerage & Water Board personnel to positively and proactively pursue the change management process. Eight steps to this model include:

- **Increase urgency** – Inspire people to move and make objectives real and relevant.
- **Build the guiding team** – Get the right people in place with the right emotional commitment and the right mix of skills and levels.
- **Get the vision right** – Get the team to establish a simple vision and strategy. Focus on emotional and creative aspects necessary to drive service and efficiency.
- **Communicate for buy-in** – Involve as many people as possible, communicate the essentials simply, to appeal and respond to people's needs.
- **Empower action** – Remove obstacles, enable constructive feedback and a lot of support from leaders – reward and recognize progress and achievements.
- **Create short** – term wins – Set goals that are easy to achieve – "in bite-size chunks". Determine a manageable number of initiatives and finish each phase before moving on to the next phase.
- **Don't let up** – Foster and encourage determination and persistence, ongoing change, and encourage ongoing progress reporting. Highlight achieved and future milestones.
- Make the change stick – Reinforce the value of successful change via recruitment, promotion, new change leaders, and weave change into the culture.

The DGAI team propose to facilitate the change management process through:

- **Workshops** – They are very useful processes to develop collective understanding, approaches, policies, methods, systems and ideas.
- **Staff surveys** – Surveys are a helpful way to repair damage and mistrust among staff. Provided that people are allowed to complete them anonymously, and facts are published publically.
- **Management training** – Empathy and capability are key priority areas because managers are crucial to the change process. They have to be able to enable and facilitate, not just convey and implement policy from above.
- **Teams and people need to be empowered** – To find their own solutions and responses, with facilitation and support from managers working with the DGAI team. Management, leadership style, and behavior are more important than clever process and policy implementation.

5.6 Issue Tracking

For a successful project, it is important that issues are carefully tracked and managed. As part of **Cogsdale**'s project methodology, a tracking tool is used throughout the implementation to track and report on:

- Configuration setup and changes
- Project Issues (**CIS Solution** issues; Business Process Issues; Conversion Issues; Bill Print Issues; Reporting Issues; Environment Issues)

- Cut-over Tasks and Assignments
- End User Training Items

This log allows for project team members to be able to see the severity/priority of the issues, the status of issues, who is responsible for the issue, and the timeline for resolution.

5.7 Project Quality Management

It is an important goal of **Cogsdale** to deliver a successful project. To support this goal **Cogsdale**'s Project Methodology has been built to include many checks and balances through the project life cycle.

A significant amount of time is spend in the Analysis understanding and documenting what needs to be done to meet the needs of the **Client**. During following phases, time is allotted to review these requirements and compare them to the system to ensure things are still in align. In addition, test scripts are developed based on these requirements. This not only allows for review but gives user the opportunity to prove that the **Client**'s needs are met.

To meet the needs of the **Client**, Cogsdale has partnered with third part vendors. As the Prime Contractor Cogsdale screens third parties carefully, to ensure that they will deliver quality projects and/or services. It is the responsibility of the **Cogsdale** Project Manager to manage the work of the third parties. Any work performed by these third parties will follow the same methodology of **Cogsdale** work and thus be subject to same review and signoff processes.

Communication is a key requirement to maintaining quality of project and if there is a concern about deliver of any Cogsdale or third party work we invite the Client to discuss with the **Cogsdale** Project Manager immediately. The Cogsdale will use this information to develop a corrective action plan and resolve the concern.

6 Project Team

6.1Client Project Team

The **Client** is the user of the system produced by **Cogsdale** and shall approve (accept) all deliverables to this SOW.

As further defined in section 4.1 of this SOW, the **Client** shall be responsible for the following:

- Project management
- Identifying a resource to assist in software setup, installation, and configuration
- Participating in software requirements gathering
- Reviewing required reports and identifying the scoping of all reports and queries that are required to go live
- Completing Microsoft e-learning courses, as identified
- Assisting in the analysis, design, and development of the **Cogsdale** portion of all interfaces between **Cogsdale**-provided applications and client applications, as further defined
- Identifying participants for user-based training
- Ensuring all participants attend required training
- Performing client Acceptance Testing
- Obtaining technical and functional knowledge transfer throughout implementation

6.1.1 Primary Client Stakeholders

The **Client** will appoint a team of staff members for the duration of the project. The project team is composed of the following positions and responsibilities:

Client Project Manager

- Facilitates client project activities
- Works in close collaboration with **Cogsdale** project management and **Cogsdale** staff
- Has overall responsibility for the execution of all **Client** tasking
- Has primary responsibility for **Client** project management activities

Data Extraction

- Provides expertise in Legacy system

Technical Resource

- Observes installation of the **CIS Solution** and any other third party software required
- Participates and assists in the verification of the software installation

Functional Resources

- Provide expertise to assist in software configuration and setup
- Aid in the gathering of information for the Detailed Walkthrough Report
- Supply ongoing existing documentation input
- Attend training
- Support acceptance testing

6.2 Cogsdale Project Team

Cogsdale is the prime contractor for this project and, as such, shall be the primary provider of guidance, consultation, and technical expertise needed to accomplish the project goals, and will

provide all of the **Cogsdale** deliverables cited herein. **Cogsdale** is an integral part of the project team, and shall participate in all relevant project decisions, and shall support project management, communication, and other relevant project tasking.

As further defined in section 4.1 of this SOW, **Cogsdale** shall be responsible for the following:

- Project management
- Software setup, installation and configuration
- Software requirements gathering and reporting
- Software design specification development and reporting, where software modifications have been identified and accepted as part of the Detailed Walkthrough Document and the RFP
- Hardware recommendation and installation support
- Report development as defined in the Detailed Walkthrough on Project Plan
- Analysis, design, and development of the **Cogsdale** portion of all interfaces between **Cogsdale**-provided applications and client applications, as further defined
- Training plan and curriculum development
- User-based training
- Technical support during client Acceptance Testing
- Technical and functional knowledge transfer throughout implementation
- Post-implementation support
- Co-ordination on management of DBE firms as defined in the Project Plan

6.1.2 Primary Cogsdale Stakeholders

Cogsdale will appoint a team of staff members for the duration of the project. The project team is composed of the following positions and responsibilities:

Cogsdale Project Manager

- Coordinates all project activities for all **Cogsdale** project staff
- Works in close collaboration with **Client** project management and **Client** Staff
- Has overall responsibility for the execution of all **Cogsdale** tasking
- Has primary responsibility for project management activities as defined

Conversion Lead

- Creates initial Solution database and maintains it
- Leads/assists in all data conversion tasking
- Verifies converted data and prepares database for data validation

Data Extraction

- Assists in all data conversion tasking
- Verifies converted data
- Assists in data mapping

Technical Consultant

- Installation of the **CIS Solution** and any other third party software required
- System Manager Training

Functional Consultants

- Software configuration and setup

- Detailed Walkthrough Report
- Documentation and input
- Status Reports

Training Consultant(s)

- Software Training and documentation

6.3 Cogsdale Staffing

The table below identifies the allocation that is anticipated and may be adjusted during the project, as necessary to meet project deliverables. **Cogsdale**'s staff that is assigned to this project shall remain until the project completion/acceptance. In the event that extenuating circumstances arise, **Cogsdale** will be required to submit a written notice, justification, and resume of replacement staff to **Client**. **Client** will have the option to approve the replacement staff, or request an alternate resource. **Cogsdale** is responsible for knowledge transfer at no charge to **Client**.

Cogsdale Resource Role	***Named Resources***	***Description***	***Project Allocation (% of total)***	***Onsite Time (% of total)***
Vice President, Business Development	Ryan Cawley	Primary point of contact at the executive level. Maintains relationships at the executive level.	As needed	As needed
Vice President, Professional Services	Chris Darrach	Services Director provides support and guidance to the **Cogsdale** Project Managers, is available as an escalation point after the Executive Project Manager, and provides Quality Assurance through the use of monthly project reviews.	2%	As needed
Executive Project Manager	Amy MacDougald	Provides support and guidance to the Project Manager, is available as an escalation point after the Project Manager, and provides Quality Assurance through weekly project reviews.	20%	N/A
Cogsdale Project Manager	Leigh MacIsaac	Maintains overall day-to-day responsibility for the **Cogsdale** deliverables for the implementation. The Project Manager will work closely with the **Client** Project Manager to ensure that the project is completed on time and on budget.	100%	75%
Primary Application Consultant	Annie Gates	The Primary Application Consultant has had previous **Client** implementation experience and will provide on-going review and quality assurance of all aspects of the software configuration and implementation.	100%	75%
Secondary Application Consultant	Brent Smith	The Secondary Application Consultant(s) will provide assistance to the Primary Application Consultant and the project team on specific tasks as detailed in the Project Plan.	70%	50%

Secondary Application Consultant	Ioana Moc	The Secondary Application Consultant(s) will provide assistance to the Primary Application Consultant and the project team on specific tasks as detailed in the Project Plan.	15%	50%
Lead Trainer	Leslie Willet-Black	Training consultant delivers training either on-site or remotely, prepares training plans, schedules training in conjunction with client.	20%	50%
Data Conversion Specialist	Sirnivas Atyam	The Data Conversion analyst is responsible for running the Data Discovery Session and preparing the data conversion plan as follows. The person in this role will: • Do analysis, design, development, unit testing and integrated testing of all conversion applications and modules, • Perform Audits on converted data at various project points, • Relate conversion technical issues to the **Cogsdale** Project Manager.	25%	50%
COBOL Programmer / Analysts	Major Services (DBE)	The COBOL Programmer/Analysts are responsible for assisting Client staff in the conversion of data from the legacy system and assisting in custom interface efforts.	25%	50%
Technical Consultant	Mike MacDonald	The Technical Consultant will be responsible for installing the **Cogsdale** Software, and setting up and defining **Cogsdale** software application and security. The Technical Consultant will also provide system administration assistance and perform regular System maintenance during the installation process.	5%	1%
Report Developer	Robin Losier	The Report Developer will assist **Client** in preparing the specifications for the Bill Print functionality. This person will also be available during the testing of the Bill, to assist in problem analysis and resolution. The Report Developer will also be responsible for development of custom reports.	10%	5%
Ad Hoc Report / Query Writer	Therese Antonini	The Report / Query Writer will address the ad hoc reporting needs of the Client.	50%	25%

Programmer	Development team resources	As specific Interfaces or System Modifications will be required, Programmer(s) from different Modules and Products will be used to design and implement the contracted changes to the system.	19%	1%
Business Consultant/ PR	Luther C. Speight & Company Team	The Business Consultant will develop and communicate the new processes and procedures that are required to effectively use the new System. The Consultant will also develop internal and external project communication plans.	5.5%	100%
Business Consultant / Technical Writer	Luther C. Speight & Company Team	The Business Consultant will be responsible for documenting the processes, procedures, and deliverables produced as a result of the business consulting and public relations activities.	32%	90%
Organizational Change Management Leader	Debra Gould & Associates, Inc. Teamh	The Organizational Change Management Leader will be responsible to create and deliver Organizational Change Workshops, provide training and perform staff surveys.	28.5%	90%
IT Technical Resource	Major Services	IT Technical Resource will assist the Client with project related IT support during the project or until a permanent resource in named. This includes tasks such as database maintenance, build updates, security, etc.	19%	100%

6.4 Client Staffing

The table below identifies the allocation that is anticipated and may be adjusted during the project as necessary to meet project deliverables.

SWBNO Staff Requirements	Initiation		Analysis				Assembly				Acceptance					Pre-Go-Live			Cutover	Go-Live & Post Imp. Support		
Month Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Expected Month																						
Role	Number of Weeks Per Month																					
Project Director / Sponsor	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Project Manager	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CSM - Functional Lead	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CSM - Business Analyst	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CSM - Subject Matter Expert	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Testing Lead	1	1	1	1	1	1	2	2	2	2	2	2	2	4	4	4	4	4	4	1	1	1
Technical Lead	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1
Technical Developer/Analyst	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1
Database Administrator	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Training Supervisor /Specialist	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1
Total Weeks Per Month Allocated	21.5	21.5	21.5	21.5	21.5	21.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	24.5	25.5	25.5	26.5	26.5	26.5	21.5	21.5	21.5
FTE Count based on 160 hours per month	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.6	5.6	5.6	5.6	5.6	5.6	6.1	6.4	6.4	6.6	6.6	6.6	5.4	5.4	5.4

7 Project Milestones & Deliverables

7.1 Milestone & Corresponding Deliverables

During contract negations Cogsdale worked with the Client to define Milestones and delivery criteria for the purpose of payment. These milestones are part of the contract and the Statement of Work. The table below describes an example of the implementation milestones that will be accomplished by **Cogsdale** over the course of the project. **Cogsdale** will complete the tasks, activities and deliverables described within this SOW and then submit the appropriate documentation for approval to **Client**. Once **Client** has reviewed and approved the **Cogsdale** items, **Client** will review and approve each item as described in the Acceptance Criteria and then process the corresponding payments, as outlined in the contract documents.

Milestone No.	Phase	Name	Del. #
1	Pre-Project	Technical Infrastructure Document	1.1
2	Initiation	Project Charter	2.1 – 2.6
3	Project Management	Updated Project Schedule	3.1
4	Software Installation	System Installation Complete	4.1-4.5
5	Analysis	Final Detailed Walkthrough Document	5.1 - 5.5
6	Configuration	Software Configuration Deliverables	6.1-6.9
7	Configuration	Custom Reports	6.10-6.11
8	Configuration	Business Intelligence Dashboard	6.12
9	Conversion	Completion of Data Conversion Plan and Data Mapping	7.1-7.2
10	Conversion	Converted Data-1,2 and 3	7.3-7.6
11	Training	Training Plan, Overview Training and Technical Training	8.1-8.6
12	Training	CSM Training-1	8.7-8.10
13	Training	CSM Training-2	8.11-8.13
14	Testing	Test Plan, test scripts, CSM-1 Test Results	9.1-9.5
15	Testing	CSM-2 through Go-Live Checklist	9.6-9.13
16	Post Go-Live Support	Fifteen days after the first nightly batch cycle completes successfully, performance measures in this SOW are met and there are no Priority 0 Defects.	7.7 10.1 - 10.2

17	Post Go-Live Support	At the successful conclusion of two complete monthly billing cycles, performance measures in this SOW are consistently met and there are no Priority 0 or 1 Defects.	10.1 – 10.2
18	Post Go-Live Support	At the successful conclusion of three months of Post Go-Live Support, all P0 and P1 Defects (not enhancements) have been resolved to **Client**'s satisfaction and resolutions to P2 and P3 defects are planned for within the next release or within a six month period.	10.1 - 10.3
19	Modifications Design	Design Specifications	6.13
20	Modifications Delivery	Delivery of Modifications	6.14
21	Modifications Acceptance	Signoff on Modifications	6.15
22	Integrations Phase 1 - Design	Design Specifications for Phase 1 Integrations	6.16
23	Integrations Phase 1 - Acceptance	Signoff on Phase 1 Integrations	6.17
24	Integrations Phase 2 – Design	Design of Phase 2 Integrations	6.18
25	Integrations Phase 2 - Acceptance	Acceptance of Phase 2 Integrations	6.19

7.2 Project Management Monthly Services

The milestones assume that full time monthly Project Management services from **Cogsdale** are being accomplished. On an ongoing monthly basis **Cogsdale**'s Project Manager will provide the following deliverables:

Updated MS Project Schedule (Weekly)	The baselined MS Project Schedule updates are performed and published weekly. The plan is updated for refinements to tasks, percent complete and milestone completions inclusive of resource updates and timeframe updates. Both parties will commit to staffing and resources to meet a rolling 3-month window.
Issue Logs and Issue Worksheets	Report that lists the issues for the project as well as responsible resource and due date. Issues are reviewed on a regular basis by the Project Team - lead by **Cogsdale**. The frequency of the reviews is usually weekly. The issue summary is reported in the Monthly Status Report.

Monthly Status Reports	Status reports will document: • Project Management Assessment • Project Planning Activities - Plan changes • By Phase, detail of prior accomplishments and upcoming activities • Issue Summary • Risk Register • Key Milestone table • Financial status • Change Order History
Phase End Reports	These reports are provided at the end of each phase and include the following information: • Phase Highlights • Budget Snap Shot • Milestone Summary • Outstanding Issues • Corrective Actions (if required)

7.3 Project Deliverables

Cogsdale Project Manager shall be responsible for the completion of the project deliverables and will work with **Client** Project Manager to complete those deliverables listed in this Statement of Work. **Cogsdale** and **Client** Project Manager shall use the **Cogsdale** methodology and apply project management best practices throughout the course of the Project.

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
1.1	Project Management	Monthly Project Management Reporting (starting the following month after the approved Initial Project Schedule is delivered and continuing through the last month of Post Implementation Support)	1) Project Schedule: This weekly deliverable defines the updated tasks, actual work, remaining work, percent complete and milestone completions including resource updates and timeframe updates. Both parties will commit to staffing and resources to meet a rolling 3-month window. 2) Monthly Risk Assessment Log and Report: the report will document all identified risks, possible mitigations, and actions assigned and reported on. 3) Issue Log:	MS Project, MExcel, MS Word and MS Power Point

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
			report that lists the issues for the project as well as responsible resource and due date. The report will list all open issues that are not appropriate to be tracked in the project plan such as to-do items, product defects, etc. (report will be managed by Cogsdale and regularly reviewed by Cogsdale and **Client**). 4) Weekly Status Reports: status reports will document prior accomplishments, upcoming activities, past due activities and action to recover, events, estimated completion dates, key decisions, staffing issues, vacation, risks, and issues. 5) Monthly Steering Committee Presentations: the presentations will summarize the current project status and describe the upcoming activities for the **Client** Steering Committee monthly review. Project problems and concerns will also be presented and discussed in these meetings. 6) Weekly Project Management Meetings: each week there will be a project management meeting between all parties. This meeting will review all aspects of the project status and establish the next weeks work priorities. (7) Participation and support with third party project consultants the **Client** engages to support the project. In addition all Cogsdale employees will be	

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
			interviewed and participate with a QA process throughout the month regarding the project status.	
2.1	Pre-Project	Technical Infrastructure Document	This plan will document Cogsdale's recommended infrastructure that is specific to the **Client** project for all environments. The plan will document roles and responsibilities, equipment needed, CPU requirements, memory requirements, network requirements, workstation requirements, the installation process and timeline plan. In addition the operating system, databases and application server, Terminal Servers, and Microsoft Internet Explorer versions and settings will also be defined. Other technical infrastructure requirements to install a successful implementation and production environment will also be documented as needed. Detailed Network diagrams will be provided in Visio (Development, Test, etc. instances).	MS Word & Visio Document
3.1	Project Initiation	Project Kick-off Presentation	Presentation designed to communicate to a mixed audience of executives, core team members, subject matter experts and users the scope of the project, project goals, organization makeup, timeline and processes.	10 to 20 slide Power Point Presentation
3.2	Project Initiation	Project Kick-off Agenda	Agenda listing topics for kick off presentation/meeting/	MS Word Document
3.3	Project Initiation	Project Charter	Defines mission, scope, major deliverables, high	20 to 30 page MS Word Document.

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
			level project schedule, change request procedures, metrics (calculation and definitions), issue and risk management procedure, high level landscape (environments), organizational chart, roles and responsibilities and project governance.	
3.4	Project Initiation	Initial Project Schedule	Cogsdale is responsible for this deliverable, with **Client** support. This is the project schedule plan that is revised and approved by both parties, and represents the starting point for the project. Both parties will staff and provide resources to meet the schedule. This schedule will outline all tasks to complete the overall project and have resources from Cogsdale and the **Client** assigned and properly allocated based on resource availability. Future deliverables, such as Functional Specification, Technical Specification, Code Developments, System Test and Training Execution will be updated with additional detail later in the project as those details are more clearly defined. This schedule will accurately reflect the work to be performed and will reflect resource allocation from a weekly view. Available working hours in the plan will also be accurately reflected based on all parties involved in the projects actual working hours. Agreed to Holidays	MS Project Schedule

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
			and individual team members vacations will be designated as non-working days for the individual resources calendar. (Weekly Maintenance of the schedule is addressed as part of the recurring Project Management deliverable). The maintenance deliverable will conform to the standards described in this SOW.	
3.5	Project Initiation	Communication Plan	Written plan for communicating on a regular basis to management, team members, subject matter experts and the user community.	3 to 5 page Word document
3.6	Project Initiation	Project Workbook	Contains project team contact details, initial issues and risks	MS Excel Document
3.7	Project Initiation	Quality and Risk Managament Plan	Written plan for identifying, assessing, and handling quality and risk issues.	3 to 5 page Word document
3.8	Project Initiation	Business Process Change Plan	Written plan for procedures for handling business process change identification and handling.	3 to 5 page Word document
3.9	Project Initiation	Cutover Readiness Criteria document	Checklist of items that need to be completed before cutover to a production system is possible.	MS Excel Document
3.10	Project Initiation	**Cogsdale** software licenses and sample data	**Cogsdale** CSM software license keys and sample company database	MS SQL Database and License keys
3.11	Project Initiation	Installed Software	Completed Installation Checklist	One to two page checklist
3.12	Project Initiation	Software Installation Summary	Contains details about Software Installation	MS Word Document
3.13	Project Initiation	Project Team Training Materials	Installed version of software on Consultant's laptop for review and discussion with the Project Team.	N/A
3.14	Project Initiation	Initiation phase report	Summary report of activities, decisions and	MS Word Document

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
			action items resulting from work accomplished during this phase.	
3.15	Project Initiation	System Installation Complete	**Client** Signoff on completion of Software Installation	PDF Document
4.1	Analysis - Detailed Walkthrough	Conduct Change Management workshops	Conduct Change Management workshops for key users	Workshop complete
4.1b	Analysis – Detailed Walkthrough	Conduct one week of Overview training for the Core Team	**Cogsdale** will provide one week of overview training to prepare the core team to participate in Detailed Walkthroughs, To-Be workshops and configuration processes.	Cogsdale to provide material and training onsite.
4.2	Analysis - Detailed Walkthrough	Conduct Detailed Walkthrough workshops	These workshops are designed to aid **Cogsdale** in learning how **Client** does business as well as educating **Client** about the features and limitations of the **Cogsdale** System. **Cogsdale** will lead the sessions with Client business process experts participating. **Cogsdale** will utilize the functional matrix as a basis for these workshops and will provide a cross reference from the Functional Matrix and the business process documentation to be provided to the Client.	Workshops complete
4.3	Analysis - Detailed Walkthrough	Final Detailed Walkthrough document	Prepare and deliver Detailed Walkthrough document based on information gathered during walkthrough workshops and the cross reference to the Functional Matrix. Client will have the opportunity to review and correct the document before giving final approval.	20 to 40 page PDF Document
4.4	Analysis -	Conduct to-be	These workshops are	Workshop complete

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
	Detailed Walkthrough	process workshops	designed to aid **Client** in identifying the new business processes utilizing **Cogsdale** System.	
4.5	Analysis - Detailed Walkthrough	To-be Process Documentation	Document to-be process based on discussions during to-process workshops	10 to 20 page MS Word Document
5.1	Design - Customization	Customization Quotes	Cost information for providing out of scope functionality.	MS Word Document
5.2	Design - Customization	Functional and Technical Specifications for Modifications	Functional Specification & High Level Test Cases for each Modified Object (Screen/Form, User Exit, Workflow and Batch Program). Defines the screen/report/form mock-ups as applicable, data items, data triggers when applicable and processing logic for each development item. Based on the requirements described in this agreement. The Interface specifications will at a minimum contain: Interface Name, General Description, Data Fields and Definitions Needed for the Interface, Triggers, Error Handling, batch processing confirmation, data balancing procedures for the Interface and any other items deemed necessary by the **Client**. High level Test Cases will also be developed to explain how the functionality will be tested. Technical Specification for each Modified Object (Screen/Form, User Exit, Workflow and Batch Program). Defines the program logic, including database tables, table joins,	10 to 75 Page Document

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
			and inputs/outputs for the program(s) that will developed to satisfy the Functional Specifications. Note: Multiple versions of this deliverable will be developed and submitted. Estimated size reflects an average wherein more simplistic specifications will be small; more complex specifications will be larger. **Client** will review to ensure this deliverable is consistent with the Functional Specifications approved by **Client**.	
5.3	Design - Customization	Develop Modifications	Completed Code for each Modified Object. Documentation that program/executable code for each development object has been developed, successfully unit tested and delivered based on the functional and technical specifications. This deliverable will function in accordance with associated Specification Documentation. A transportability test conducted that will be a high level review to ensure all objects execute and are ready for formal testing by the **Client**.	Code Development and Documentation
5.4	Design - Customization	Test Modifications	**Client** will test the modifications to verify that the modifications function as per the development requirements. **Client** will document the test results.	MS Word/Excel Spreadsheet
5.5	Design - Customization	Functional & Technical Specifications for Integrations	Functional Specification & High Level Test Cases for each integration. The Interface specifications will at a minimum contain:	10 to 75 Page Document

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
			Interface Name, General Description, Data Fields and Definitions Needed for the Interface, Triggers, Error Handling, batch processing confirmation, data balancing procedures for the Interface and any other items deemed necessary by the **Client**. High level Test Cases will also be developed to explain how the functionality will be tested. Technical Specification for each integration (Screen/Form, User Exit, Workflow and Batch Program). Defines the program logic, including database tables, table joins, and inputs/outputs for the program(s) that will developed to satisfy the Functional Specifications. Note: Multiple versions of this deliverable will be developed and submitted. Estimated size reflects an average wherein more simplistic specifications will be small; more complex specifications will be larger. **Client** will review to ensure this deliverable is consistent with the Functional Specifications approved by **Client**.	
5.6	Design - Customization	Test Integrations	**Client** will test the integrations to verify that the integrations function as per the development requirements. **Client** will document the test results	MS Word/Excel Spreadsheet
5.7	Design - Customization	Custom Reports	Develop reports as per Detailed Walkthrough document	Reports Deployed

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
5.8	Design - Customization	Business Intelligence Dashboards	Develop and Deploy Business Intelligence Dashboards.	Dashboards/Reports Deployed
5.9	Design - Customization	System Security Plan	Written document specifying the user security to be implemented, including the definition of user roles, groups, and individual access privileges.	MS Word Document
6.1	Software Configuration	Setup GL Accounts	Setup Chart of Accounts as per Detailed Walkthrough document	Configured system
6.2	Software Configuration	Setup CSM based upon Scope (Walkthrough) Document	Cogsdale will lead this process with the **Client's** support. Utilizing the approved Scope Documentation, this deliverable is the delivery itself of the initial Solution configuration which has been loaded into an environment for **Client** access and from which basic Solution functions can be performed. Any configuration which is pending a **Client** decision or the delivery of previously requested data or information which has not been delivered to Cogsdale is not considered part of the initial configuration.	Configured system
6.3	Software Configuration	Payment Import and Cashiering Integration(Receipt Printer)	Configuration of Payment Import and Cashiering	Configured system
6.4	Software Configuration	Bill Template Report	Create Bill Template report as per Bill Template specifications. This Report will be used to generate Bills	Crystal Report/SQL
6.5	Software Configuration	Bill Export	Create SQL Procedure to create Bill export as the specifications	Crystal Report/SQL
6.6	Software Configuration	Customer Web setup	Configuration of System related to Customer Web	Configured system

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
			user portal.	
6.7	Software Configuration	Satori Address Verification	Configuration of System to use Satori Address Verification	Configured system
6.8	Software Configuration	Service Order Costing	Configuration of Service Order Costing.	Configured system
6.9	Software Configuration	Maintenance Management	Configuration of Maintenance Management	Configured system
7.1	Data Conversion	Data Conversion Plan	This document defines the data mappings between the legacy and the target system, as well as data that are missing from a legacy perspective and target system perspective, and the method for resolving the data gaps. The data mapping document will include a high level description of custom data manipulation needed. The detail programming logic will be available for review in the detailed Conversion Design Specifications. Each field for all applicable legacy system tables will be mapped to the target systems tables and fields.	MS Word /Excel Document
7.2	Data Conversion	Conversion Design Specifications/ Detailed Data Mapping (Target System)	Defines the program logic, data elements/file formats and program logic for the "Upload" Conversion Programs. Defines the report format, data elements/file formats and program logic for the Audit Control Reports and Financial Balancing. Defines the report format, data elements/file formats and program logic for the Error Reports.	25 to 50 page Cogsdale-supplied MS Word /Excel Document
7.3	Data Conversion	Conversion Design Specifications (Legacy System)	Defines the program logic, data elements/file formats and program logic for the Extracts. These output file	25 to 50 Page Client developed document

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
			formats will be mutually agreed to by the **Client** and Cogsdale.	
7.4	Data Conversion	Converted Data -1	Completed programs for the import of data from the Legacy System. All elements for conversion have been developed based on the approved Data Mapping deliverable. Execute Scripts and analyze accuracy of converted data.	Populated Database
7.5	Data Conversion	Converted Data -2	Completed programs for the import of data from the Legacy System. All elements for conversion have been developed based on the approved Data Mapping deliverable. Execute Scripts and analyze accuracy of converted data.	Populated Database
7.6	Data Conversion	Converted Data -3	Completed programs for the import of data from the Legacy System. All elements for conversion have been developed based on the approved Data Mapping deliverable. Execute Scripts and analyze accuracy of converted data.	Populated Database
7.7	Data Conversion	Converted Data -4	Completed programs for the import of data from the Legacy System. All elements for conversion have been developed based on the approved Data Mapping deliverable. Execute Scripts and analyze accuracy of converted data. Data Conversion runs shall continue until all mapped	Populated Database

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
			data is properly converted and balanced. Thus, additional conversion runs shall be executed if needed.	
7.8	Data Conversion	Converted Data - Final	Completed programs for the import of data from the Legacy System. All elements for conversion have been developed based on the approved Data Mapping deliverable. Execute Scripts and analyze accuracy of converted data.	Populated Database
8.1	Training	Training Plan		MS Word/Excel Document
8.2	Training	Overview Training	Execution of System Overview Training to users. Provide **Cogsdale** Training materials to **Client**.	Training complete
8.3	Training	System Administration Training	Execution of System Administration Training to key and technical users	Training complete
8.4	Training	Smart List Training	Execution of SmartList training to users	Training complete
8.5	Training	Extender Training	Execution of Extender training to technical users	Training complete
8.6	Training	Modifier Training	Execution of Modifier training to technical users	Training complete
8.7	Training	CSM Training	Execution of **Cogsdale** CSM training to users	Training complete
8.8	Training	Service Order Costing Training	Execution of training on Service Order Costing to users	Training complete
8.9	Training	Maintenance Management Training	Execution of Maintenance Management training to users	Training complete
9.1	Deployment	Functional Test Plan	Defines the success criteria, goals, objectives, and scope of Testing, inclusive of resources roles, and responsibilities, test environment/instance management. These documents outline the plan for testing, specific scripts	MS Word/Excel document

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
			and expected results	
9.2	Deployment	Functional Test scripts	**Cogsdale** works with **Client** in preparing test scripts needed for testing	MS Word/Excel document
9.3	Deployment	CSM test-1 results document	Perform CSM functional testing and document the test results.	MS Word/Excel document
9.4	Deployment	CSM test-2 results document	Perform CSM functional testing and document the test results.	MS Word/Excel document
9.5	Deployment	Service order test results document	Perform Service order testing and document the test results.	MS Word/Excel document
9.6	Deployment	Maintenance Management test results document	Perform Maintenance Management testing and document the test results	MS Word/Excel document
9.7	Deployment	Integration Testing document	Defines the integration test scenarios that will be tested during integration testing, including input data and expected outputs. The integration testing scenarios will include Base Functionality, System Operation Requirements, Reporting, Modifications and Interfaces. In addition full data conversion will be tested as part of Integration testing. The expected results will model multiple months of data entry and include daily cycles, monthly cycles and quarterly closeouts to model production processing. In addition the deliverable will document: 1. Components to be covered by Integration Testing in each phase 2. Type of data to be used for each phase / component (i.e. user created vs. converted date) 3. Roadmap for the phases and tasks	MS Word/Excel document

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
			4. Individual Task and Activities 5. Roles and Responsibilities of all participants, including technical support of environments. 6. Schedules and dependencies of the different components of Integration Testing 7. Material & environment requirements for Integration Testing 8. Method to identify, classify, track and correct defects identified during Integration Testing 9. Test Case format and criteria 10. Summary of key components of Test Cases and Scripts 11. Test Incident tracking methodology, including triage, escalation and metrics 12. Completion Criteria	
9.8	Deployment	Integration Test Execution	This deliverable confirms that the testing has been successfully completed. There will be no Level 1 or Level 2 Defects unless the **Client** and Cogsdale mutually agree to proceed.	Report and confirmation from **Cogsdale**
9.9	Deployment	User Acceptance Test Plan and Scenarios	Defines the Pre-Production Test execution approach that will be used during testing including input data, converted data and expected outputs. The plan will also define the processes to compare legacy generated charges to the same meter reads for new system charges. The	10 to 40 Page Document

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
			testing scenarios will include Base Functionality, System Operation Requirements, Reporting, Modifications, Interfaces and data conversion. Defines the Pre-Production test scenarios that will be tested during this phase, including input data and expected outputs. The testing scenarios will include Base Functionality, System Operation Requirements, Reporting, Modifications, Interfaces and data conversion. The expected results will model multiple months of data entry and include daily cycles, monthly cycles and quarterly closeouts to model production processing. Scenarios will also include end-to-end test scenarios that will cross multiple departments (i.e., read to bill). At completion of pre-production scenario development, all To-Be business processes will have been incorporated into the testing scenarios.	
9.10	Deployment	User Acceptance Test (UAT) Execution	Execution of the Pre-Production Phase of Testing. This phase of testing will include all major business processes. The Pre-Production Testing Plan will define the specific details of this deliverable. As a component of this deliverable, a focused testing of comparing bills generated from the legacy system and the new system to compare mass volumes of rates and charges. The	1 Page Confirmation

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
			test will include all account types (Residential, Commercial, etc.). Pre-Production Testing has been successfully completed and there are no Level 1 or 2 defects.	
9.11	Deployment	Go-Live Checklist	Prepare checklist of tasks to be verified in preparation for Go-Live. Defines the detailed steps (automated and manual) to execute the go-live production, metrics, timing, and items that need to be in place for the conversion cutover to production.	MS Word/Excel document
9.12	Deployment	Cut over support	Provide support to **Client** in prepare for Go-Live	N/A
9.13	Deployment	Mock Cutover	A minimum of two Mock Cutovers will be conducted. A mock conversion is an exercise of the **Conversion Strategy and Conversion Checklist**. The Mock Conversion is an execution of the conversion processes and programs for the entire data-set to be converted. All Conversion Validation is also executed by the parties that will perform the Go-Live Validation. A Mock Conversion will consist of a test of the activities to be completed as part of cut-over to production process. The Mock Conversion is staged in the exact manner as the pre-go-live steps and procedures including data validation.	Confirmation and Report on Readiness
9.14	Training	End User Training	Execution of **Cogsdale** training to users	Training complete

Del #	Phase	Deliverable Name	Deliverable Description	Form/Format
10.1	Cutover	Readiness Checklist	List of activities and tasks needing to be completed in order to formally operate the new System in the production environment.	MS Excel
10.2	Cutover	Cutover Assistance	Assistance by Cogsdale during the cutover to production,	**Cogsdale** System is operating and being used
11.1	Operation	Go-Live	Go-Live to Production	**Cogsdale** System is operating and being used
11.2	Operation	Post Implementation Support- Months 1-2	At the conclusion of month **one, two and three** after Go-Live, Performance Criteria in this agreement are consistently achieved and there are no **Level 1** or **Level 2 Defects.** Includes On-site support to answer questions, research issues and solve problems relative to the Application Software Products.	One page confirmation
10.3	Operation	Audit Report	The audit report outlines all outstanding issues, operational risks, and relevant action items to ensure the stability of the System's operation.	MS Word document
10.4	Operation	Support Transition	**Client** team is introduced to **Cogsdale** support team. **Cogsdale** Support team explains the support process.	Meeting /PDF document

8 Appendices

8.1 List of Modifications

The following table outlines the **modifications** identified:

NAME OF ENHANCEMENT OR MODIFICATION and Referenced Functional Requirement(s)	FIXED COST
School Board Billing	$18,562
Free Water	$16,988
Boil Water Credit	$18,563
High Strength Industrial Billing Algorithm	$15,412
Deposits Automation	$18,562
Req 2.1.1 – Numeric Range of Street Addresses	$7,875
Req 3.1.156 – Reverse Fees or Refund Deposit if Applicable	$7,875
Req 3.1.157 – Restore Customer & Account Status	$4,725
Req 4.2.46 – Automatically download skipped reads to handheld by Geographic Route or Area	$7,875
Req 4.4.34 – 4.4-36 – Trouble Codes Automatically create Form Letter, Customer Notes & Premise Notes	$7,875
Req 9.4.18 – Gross Payment including Agency Fee through Cogsdale Collection Agency Interface	$10,500
Req 11.2.40 – 11.2.45 – Automation of Budget Billing & Payment Arrangements through Web Portal	$10,500
TOTAL COST OF ENHANCEMENTS AND MODIFICATIONS*	**$145,312**

OPTIONAL MODIFICATIONS

NAME OF ENHANCEMENT OR MODIFICATION and Referenced Functional Requirement(s)	FIXED COST
Req 2.2.159 – Soundex "Sounds like" for Query Purposes	$16,800
Req 5.2.22 – Base/Fixed Charge ignored by rate if less than a minimum number of days of service are billed	$5,040
Req 5.2.23 – By Rate, Can the Base/Fixed Charge proration be ignored if less than a minimum number of days of service	$5,040

are being billed?	
Req 5.2.89 - Can your product flag a historical reading to exempt it from any type of average calculation performed by the system?	$5,040
5.2.106 - For the above, if the customer has no preference, does your product select a billing/due date that will assist the utility in leveling its work load?	$8,400
5.6.62 - Premises type?	$16,800
7.1.23 - Percentage of charges for a service?	$6,720
7.1.24 - Percentage of charges for multiple services?	$6,720
8.1.21 - Does your product automatically reverse all the returned item actions (e.g., NSF charges, credit rating hits, NSF count, etc.) if the cause is determined not to be the customer's fault?	$12,600
11.1.8 - A text message to a specified phone number on record?	$8,400
11.1.9 - A voice message to a specified phone number on record?	$8,400
11.2.65 - Statistical analysis of responses?	$16,800
TOTAL COST OF ENHANCEMENTS AND MODIFICATIONS*	**$116,760**

8.2 System Interface Specifications

Cogsdale will create functional and technical specifications for each of the interfaces to define the detailed design, technical approach, and the appropriate error handling if there are problems with the interface. Control reports for the interfaces will also be created to validate the successful completion of the interface transactions.

1.		***CGI Financial Interface*** As part of SWBNO's CIS project, Cogsdale will create an interface between Cogsdale CSM (Customer Service Management) and CGI (AMS) Financials version 2.2. The integration between Cogsdale CSM and CGI will consist of 2 components. The first component will send General Ledger transactions on the accrual basis of accounting from Cogsdale CSM to CGI. The second component will send refund checks from Cogsdale CSM to CGI. An automated SQL Server Job (or batch process) will be created that can be scheduled to occur on a regular basis. This process will create and transmit a flat file or multiple flat files containing data in format that is compatible with CGI. If CGI generates a processing error, the process can be re-run once the error has been identified and resolved. Typically, similar integrations are run daily, but schedule and timing is flexible, and will be determined during implementation.
2.		***ESRI GIS Interface*** Allows full integration between mapping and GIS tools to Cogsdale's CSM product. The Cogsdale CSM integrated customer service management suite allows you to access and manage a wealth of information to serve your clients. GeoLocation Management (GLM) extends the capabilities of the Cogsdale product family to incorporate a broad range of spatial or map-based tools. Cogsdale GLM is a smart mapping and spatial management solution, designed to address the specific requirements of Cogsdale customers. All of the core data entities in the Cogsdale data model—customer accounts, connections, service orders, equipment and assets—are available in GLM. GLM is designed to function as both a standalone solution, opening up new map-based functionality to users who do not have an existing GIS system or as part of an integrated mapping system for customers already leveraging an existing enterprise GIS system.
3.		***Tax Assessor/Property Interface*** The GIS Address_Points layer will be directly interfaced to the Cogsdale Service Address entity. All address records maintained in the GIS Address_Points layer will be imported into the Cogsdale address table – UMRM0112 and made available to CSM users. When a request for service is processed, the CSR will search for the existing address record and select the address for the new Account record. CSM users will manually add address records only in exceptional cases where an address is required immediately and not available from the pre-loaded GIS addresses.

		In cases where the CSR user is forced to add a new address, these records will be flagged in discrepancy reports and made accessible to the responsible SWBNO staff for investigation. If valid, the GIS Address_Points data layer will be updated to include the new address; if invalid, the CSM account record will be manually updated to the correct street address record.

8.3 Change Request Form

Cogsdale Change Order

CLIENT		CLIENT CONTACT	
PROJECT MANAGER		PREPARED BY	
REFERENCE NUMBER		CASE NUMBER	
DATE		CLIENT PO	
DESCRIPTION			

Estimate				
	Quantity/Hours	Rate		Total
Services				
Professional Services	0	0	$	-
Design	0	0	$	-
Development	0	0	$	-
Testing	0	0	$	-
Project Management	0	0	$	-
Sub-Total			$	-
Software				
	0	0	$	-
Sub-Total			$	-
Annual Maintenance and Support			$	-
			$	-

PAYMENT TERMS:
This change order provides an estimated based on the scope defined in the Proposed Solution/Scope Section.
Payment Method:

Cogsdale Change Order

CONTRACT INFORMATION:	
The original contract sum was (includes M&S)	
Net change by previously authorized Change Orders	
The Contract Sum prior to this Change Order was	
The Contract Sum will Increase/Decrease by this Change order in the amount of	
The Contact Sum including this Change Order will be	
The Contract completion date as a result of this Change Order will be	

AUTHORIZED BY CLIENT:	AUTHORIZED BY COGSDALE:
NAME/DATE	NAME/DATE

CLIENT DESCRIPTION:

PROPOSED SOLUTION/SCOPE:

DEPLOYMENT CONSIDERATIONS:

In addition to the above charges summary, expenses will be charged per the services agreement between **Cogsdale** and **Client**.

8.4 Client Hardware Specifications

The following hardware has been selected by **Client** to meet **Cogsdale**'s minimum requirements. **Cogsdale** has reviewed this list and acknowledges that it does meet the minimum hardware specifications and thus will meet all quoted performance specifications:

Overview

This document contains the minimum client hardware requirements, server recommendations and Terminal Server minimum hardware requirements supported by the Microsoft Dynamics GP Technical Support Team. The following server recommendations are not minimum server requirements. The requirements and recommendations are based on experience with many different installations. Users may need to increase these requirements due to environmental factors to achieve individual performance expectations.

Client Requirements

Item	Requirements	
	32-bit	**x64**
Operating System	Microsoft Windows 8 Professional Edition Microsoft Windows 8 Ultimate Edition Microsoft Windows 7 Professional Edition Microsoft Windows 7 Ultimate Edition	Microsoft Windows 8 Professional Edition Microsoft Windows 8 Ultimate Edition Microsoft Windows 7 Professional Edition Microsoft Windows 7 Ultimate Edition
Processor	1 Dual Core or 1 Single Core Processor 2.6 GHz or higher	1 Dual Core or 1 Single Core Processor 2.6 GHz or higher
Available Hard Disk Space	2GB or more on the system root	2GB or more on the system root
Minimum Available RAM	2GB or more	2GB or more
Network Card	1GB Ethernet	
Microsoft Office	Microsoft Office 2013 32bit & x64 Microsoft Office 2010 32bit & x64	
Internet Explorer	Internet Explorer 10.0 - Desktop Mode Only Internet Explorer 9.0 Internet Explorer 8.0	
ODBC Driver	SQL Native Client 11.0 SQL Native Client 10.0 ****NOTE:** A 32bit ODBC DSN is required for Microsoft Dynamics GP 2013**	
Adobe	Adobe X	
Virtual Environments Supported (Optional)	Hardware Virtualization Windows Server 2012 Hyper-V Windows Server 2008 Hyper-V Software Virtualization Microsoft Application Virtualization (App-V) 5.0	

	Microsoft Application Virtualization (App-V) 4.6 For additional Virtual Technology Support, click the link below to review the Virtualization Support Policy Wizard. Choose Dynamics GP as the product. http://www.windowsservercatalog.com/svvp.aspx?svvppage=svvpwizard.htm

NOTES

1. The following are no longer supported with Microsoft Dynamics GP 2013:
a. Windows XP all editions
b. Windows Server 2003 all editions
c. Windows Vista all editions
d. Internet Explorer 7.0
e. Microsoft Office 2007
f. Microsoft SQL Server 2005 all editions
g. Windows SharePoint Services 3.0
h. Microsoft Office SharePoint Server 2007
i. Office Communicator 2007
2. A 32-bit ODBC DSN is required for Microsoft Dynamics GP 2013 on a 32-bit and x64 machine. Refer to KnowledgeBase Article 870416 for the steps to setup a 32-bit ODBC DSN on an x64 machine.
3. When you deploy a system in a virtual environment, make sure that you have sufficient hard disk space to avoid performance problems. Each computer that you deploy in a virtual environment should meet or exceed the random access memory (RAM) requirements and the hard disk space requirements. For more information, click the following article number to view the article in the Microsoft Knowledge Base: 897615 Support policy for Microsoft software running in non-Microsoft hardware virtualization software.

Server Recommendations: Customer Profile 4

Item	Requirements	
Customer Profile 4 Usage	Use Financials Series and Distribution Series modules extensively Use Field Service Series, Manufacturing Series, and Project Series modules extensively Have between 60 and 100 concurrent users Use Terminal Server Use Report Writer, Crystal Reports or Management Reporter extensively Use an import routine extensively - eConnect Process more than 4000 transactions per day-Originating in Sales (SOP and/or RM), Payables or General Ledger Perform online analytical processing (OLAP) cube generation (to different machine) Dedicated Microsoft SQL Server	
	32-bit	**x64**
Database Requirements	Microsoft SQL Server 2012 - Enterprise Edition or Standard Edition Microsoft SQL Server 2008 R2 SP1 or later - Enterprise Edition or Standard Edition Microsoft SQL Server 2008 SP3 or later - Enterprise Edition or Standard Edition **Supported Microsoft SQL Server Collation** **1. Dictionary Order Case Insensitive - Sort Order 52** In the SQL Server Management Studio, right-click the SQL Server Name and click Properties: Server Collation =	Microsoft SQL Server 2012 - Enterprise Edition or Standard Edition Microsoft SQL Server 2008 R2 SP1 or later - Enterprise Edition or Standard Edition Microsoft SQL Server 2008 SP3 or later - Enterprise Edition or Standard Edition **Supported Microsoft SQL Server Collation** **1. Dictionary Order Case Insensitive - Sort Order 52** In the SQL Server Management Studio, right-click the SQL Server Name and click

	SQL_Latin1_General_CP1_CI_AS **2. Binary - Sort Order 50** In the SQL Server Management Studio, right-click the SQL Server Name and click Properties: Server Collation = Latin1_General_BIN	Properties: Server Collation = SQL_Latin1_General_CP1_CI_AS **2. Binary - Sort Order 50** In the SQL Server Management Studio, right-click the SQL Server Name and click Properties: Server Collation = Latin1_General_BIN
Operating System	Microsoft Windows Server 2008 Enterprise Edition SP2 or later	Microsoft Windows Server 2012 Standard Edition Microsoft Windows Server 2008 R2 Enterprise Edition SP1 or later Microsoft Windows Server 2008 Enterprise Edition SP2 or later
Processor	2 Dual Core or 4 Single Core Processors	2 Dual Core or 4 Single Core Processors
Disk Configuration	RAID 1 for operating system and applications (2 disks) RAID 1 for SQL database log files (2 disks) RAID 1 for TempDB (2 disks) RAID 0 for SQL backups (full and log) (2 disks) RAID 0+1 for data files (8 disks or more)	RAID 1 for operating system and applications (2 disks) RAID 1 for SQL database log files (2 disks) RAID 1 for TempDB (2 disks) RAID 0 for SQL backups (full and log) (2 disks) RAID 0+1 for data files (8 disks or more)
Minimum Available RAM	8 GB or more	8 GB or more
Network Card	1GB Ethernet	
Virtual Environments Supported (Optional)	Hardware Virtualization Windows Server 2012 Hyper-V Windows Server 2008 Hyper-V Software Virtualization Microsoft Application Virtualization (App-V) 5.0 Microsoft Application Virtualization (App-V) 4.6 For additional Virtual Technology Support, click the link below to review the Virtualization Support Policy Wizard. Choose Dynamics GP as the product. http://www.windowsservercatalog.com/svvp.aspx?svvppage=svvpwizard.htm	

NOTES

1. The following are no longer supported with Microsoft Dynamics GP 2013:
a. Windows XP all editions
b. Windows Server 2003 all editions
c. Windows Vista all editions
d. Internet Explorer 7.0
e. Microsoft Office 2007
f. Microsoft SQL Server 2005 all editions
g. Windows SharePoint Services 3.0
h. Microsoft Office SharePoint Server 2007
i. Office Communicator 2007

2. Verify processors can be upgraded to 8 processors.
3. Additional disks will improve Microsoft SQL Server performance.

4. Verify switch is capable of handling network traffic.
5. When you deploy a system in a virtual environment, make sure that you have sufficient hard disk space to avoid performance problems. Each computer that you deploy in a virtual environment should meet or exceed the random access memory (RAM) requirements and the hard disk space requirements. For more information, click the following article number to view the article in the Microsoft Knowledge Base: 897615 Support policy for Microsoft software running in non-Microsoft hardware virtualization software.

Terminal Server Requirements

Item	Requirements	
	32-bit	**x64**
Operating System	Microsoft Windows Server 2008 SP2 or later - Enterprise Edition or Standard Edition	Microsoft Windows Server 2012 - Essentials or Standard Edition Microsoft Windows Server 2008 R2 SP1 or later - Enterprise Edition or Standard Edition Microsoft Windows Server 2008 SP2 or later - Enterprise Edition or Standard Edition
Citrix (Optional)	Citrix XenApp	Citrix XenApp
Processor	2 Dual Core or 4 Single Core Processors	2 Dual Core or 4 Single Core Processors
Disk Configuration	RAID 1 for operating system and applications (2 disks)	RAID 1 for operating system and applications (2 disks)
Minimum Available RAM	4 GB or more	4 GB or more
Network Card	1GB Ethernet	
Users	15-20 users per Terminal Server	
Virtual Environments Supported (Optional)	Hardware Virtualization Windows Server 2008 Hyper-V Windows Server 2012 Hyper-V Software Virtualization Microsoft Application Virtualization (App-V) 5.0 Microsoft Application Virtualization (App-V) 4.6 For additional Virtual Technology Support, click the link below to review the Virtualization Support Policy Wizard. Choose Dynamics GP as the product. http://www.windowsservercatalog.com/svvp.aspx?svvppage=svvpwizard.htm	

NOTES
1. The following are no longer supported with Microsoft Dynamics GP 2013:
a. Windows XP all editions
b. Windows Server 2003 all editions
c. Windows Vista all editions
d. Internet Explorer 7.0
e. Microsoft Office 2007
f. Microsoft SQL Server 2005 all editions
g. Windows SharePoint Services 3.0
h. Microsoft Office SharePoint Server 2007

i. Office Communicator 2007
2. It is recommended to have a dedicated Terminal Server/Citrix Server. There may be performance losses if Microsoft SQL Server is running on the Terminal Server/Citrix Server. Therefore, it is highly recommended to have two separate servers. One server with Terminal Server and/or Citrix and one server with Microsoft SQL Server.
3. If accessing Citrix, the hardware and software must be supported according to the Citrix configuration requirements.
4. Verify processors can be upgraded.
5. The amount of RAM needed depends on the number of concurrent users per Terminal Server.
6. Verify switch is capable of handling network traffic.
7. Increased user count may require greater RAM and Processor speed.
8. Users utilizing Management Reporter or Crystal reporting via Terminal Services may require increased hardware to increase performance.
9. When you deploy a system in a virtual environment, make sure that you have sufficient hard disk space to avoid performance problems. Each computer that you deploy in a virtual environment should meet or exceed the random access memory (RAM) requirements and the hard disk space requirements. For more information, click the following article number to view the article in the Microsoft Knowledge Base: 897615 Support policy for Microsoft software running in non-Microsoft hardware virtualization software.

Additional Information

1. This document represents configurations tested by Microsoft Business Solutions and supported by Microsoft Dynamics GP Technical Support. Use of technologies not specified in this document is not recommended and will not be supported. Testing is ongoing, and as newer technologies become supported this list will be updated.

2. If you will be using the Business Portal, Workflow or SQL Server Reporting Services, refer to the Microsoft Dynamics GP 2013 Web Application Portal System Requirements

3. The following are no longer supported with Microsoft Dynamics GP 2013:
a. Windows XP all editions
b. Windows Server 2003 all editions
c. Windows Vista all editions
d. Internet Explorer 7.0
e. Microsoft Office 2007
f. Microsoft SQL Server 2005 all editions
g. Windows SharePoint Services 3.0
h. Microsoft Office SharePoint Server 2007
i. Office Communicator 2007
4. Click HERE to view a KnowledgeBase article regarding support in a virtual environment. The following virtual products have been tested: Microsoft Windows Server 2012 Hyper-V, Microsoft Windows Server 2008 Hyper-V, Microsoft Application Virtualization (App-V) 4.6 and Microsoft Application Virtualization (App-V) 5.0. For additional Virtual Technology Support, click the link below to review the Virtualization Support Policy Wizard. Choose Dynamics GP as the product.
http://www.windowsservercatalog.com/svvp.aspx?svvppage=svvpwizard.htm

5. The Microsoft Dynamics GP 2013 core application is supported in a peer to peer (workgroup) environment. This environment excludes all web applications such as Business Portal, Workflow, Web Services, eConnect, Management Reporter. If web applications are used, a domain is required.

6. If you have questions regarding licensing SQL Server for use with Microsoft Dynamics GP. Please contact a Licensing Specialist at 1-800-426-9400.

Support Information

For technical support questions, contact your partner or, if enrolled in a support plan directly with Microsoft, you can enter a new support request to Microsoft Dynamics® Technical Support from Customer Source or Partner Source under Support >> **New Support Request**.
You can also contact Microsoft Dynamics® Technical Support by phone using these links for country specific phone numbers.
Partners - Global Support Contacts (requires Partner Source login)
Customers - Global Support Contacts (requires Customer Source login)

8.5 Document Revision History

Date	Revision Number	Description