

Statement of Work

MeterSense Meter Data Management SmartWorks Compass Utility Decision Management CustomerConnect Web Presentment

> Presented to City of Lawrence KS

> > February 27, 2018 Version: 0.7

www.harrisutilities.com/smartworks



Revision Control

Document Title:City of Lawrence –SmartWorks Compass Statement of WorkAuthor:Harris Utilities SmartWorks - Professional Services		•	
Version	Date	Author	Details / Comments
Version 0.1	2018.01.10	C. Craig	Initial Draft.
Version 0.2	2018.01.19	V. Gagnier	Review/Edit
Version 0.3	2018.01.24	V. Gagnier	Included Advanced MDM integration work as part of scope for Statement of Work
Version 0.4	2018.02.08	City of Lawrence	Added comments as a follow up on 2018.02.07 call
Version 0.5	2018.02.14	V. Gagnier	Updates based on comments
Version 0.6	2018.02.21	City of Lawrence	Provided feedback
Version 0.7	2018.02.27	V. Gagnier	Updates based on 2018.02.27 call with customer



Table of Contents

Contents

REVISI	ON CONTROL	2
TABLE	OF CONTENTS	3
1 IN'	TRODUCTION	5
1.1	Glossary of Terms	5
1.2	Roles and Responsibilities	7
1.3	Related Documents	7
2 SM	IARTWORKS COMPASS IMPLEMENTATION SCOPE	8
2.1	Software Modules	8
2.2	SmartWorks Compass Modules	8
	1 MeterSense MDM	
	2 Distribution Optimization Module	
	4 Weather Content	
2.3	Compass and Connect Training and Discovery Sessions	10
2.4	Deliverables	12
2.5	Areas Out of Scope	12
3 CU	STOMERCONNECT IMPLEMENTATION SCOPE	13
3.1	CustomerConnect Modules	13
3.2	CustomerConnect Training	15
3.3	Project Deliverables, Milestones and Work Products	
	1 Deliverables	
	2 Work Products Areas Out of Scope	
3.4	•	
	FTWARE INTEGRATIONS	
4.1	AMI Head End System	
4.2	Customer Information System - Advanced's CIS Infinity (v4.x)	
	2 CIS Synchronization Integration between Advanced S CIS Infinity and Smartworks Compass	
	3 Billing Interface (MultiSpeak®):	
	4 Service Order Integration 5 Remote Actions	
4.3	CustomerConnect Infinity.Link SSO Integration	
4.4	CustomerConnect / MDM Integration (MeterSense)	21
4.5	Weather Integration	21
4.6	Distribution Optimization	22
4.7	Geographic Information System (GIS)	22
5 PR	OJECT MANAGEMENT APPROACH	



5.1	Communication/Relationship Management Approach	23
5.2	Work Management Approach	24
5.3	Change Management Approach	25
5.4	Risk Management Approach	25
5.5	Acceptance Management Approach	27
6 DE	LIVERY APPROACH	
6.1	Implementation Approach – Phases, Deliverables, Key Milestones	28
6.2	Implementation Methodology	28
6.3	Implementation Timeline	
6.4	Validation/Testing Approach	
6.4.	1 Solution Acceptance Testing Procedure	
6.5	Customer Resource Involvement	
6.6	Engagement Completion Criteria	
7 ASS	SUMPTIONS	
8 DO	CUMENT ACCEPTANCE AND SIGNOFF	
APPENI	DIX A – CHANGE ORDER TEMPLATE	



1. INTRODUCTION

This Statement of Work (SOW) defines the work to be performed by the Harris Utilities, SmartWorks and Advanced Utility Systems (Advanced) divisions of N.Harris Computer Corporation (Herein referred to as "Harris") for City of Lawrence (Herein referred to as "Customer"). This SOW includes a high level timeline, fees, and other Terms and Conditions specific to the services requested by Customer.

This document serves as the complete understanding, between Customer and Harris, as to what the current Statement of Work entails. This document will be used as a reference by Harris for the configuration and implementation of SmartWorks Compass MDM (Herein referred to as the "Harris Software"). This document will also be used by Customer to determine if the Harris Software provides the functionality requested and agreed to, per this document. If there are any issues during the project lifecycle, this document will be used to help determine if the issue is a configuration/development issue or if the issue was not included as part of the current Statement of Work.

Changes to this document shall be made through a Change Management Process as described Section 5.3.

The implementation project will accomplish the following high level objectives:

- 1. Install, configure and implement The Harris Software as defined in Section 2.1. This solution will be installed in a Harris Hosted environment.
- 2. Initiate the collection and management of interval data from AMI Meters within the Harris Software.
- 3. Integrate with Advanced's CIS and Customer's future AMI (to be selected after SOW signature) to import meter usage, event and location data and provide the necessary meter, event, and billing data as required.
- 4. Deliver system training designed to develop competency with the use and configuration of the Harris Software.

Acceptance Testing Period	Has the meaning given in Section 6.4.
Actual Solution Acceptance Date	Has the meaning given in Section 6.4.1.
Billing Determinant	 The measure of consumption used to calculate a customer's bill. A billing determinant is either; A register read; or A value calculated by the MDM for billing purposes based on interval and/or register read data. If rates are blocked, seasonally differentiated, or time-differentiated, then the billing determinants are organized in the same fashion.

1.1 Glossary of Terms



Change Management Process	The process outlined in section 5.3 of the SOW, which Harris will follow for any proposed changes to the SOW.
Correction Period	Has the meaning given in Section 6.4.1.
Deliverable	An item created during the engagement that requires formal review and approval by the customer.
Deliverable Acceptance Criteria	Has the meaning given in Section 5.5.
Deliverable Acceptance Criteria Document	Has the meaning given in Section 5.5.
Detailed Project Plan	A plan jointly created and base lined by Customer and Harris during the Initiation/Definition phase of the project, which establishes the implementation timeline (including certain milestones) for the project.
Expected Solution Acceptance Date	The date, identified in the Detailed Project Plan, by which the Parties expect Solution Acceptance to be achieved.
Functional Testing	Has the meaning given in Section 6.4.
Go-Live Plan Document	A Deliverable identifying and describing the activities to be performed during the Go-Live phase of the project.
Integration Testing	Has the meaning given in Section 6.4.
Interval Read Data	A meter read showing the consumption over a defined period of time, or interval, normally 1 hour, 30 minutes, 15 minutes or 5 minutes. Typical units of measure include Gallons/cubic foot or cubic meter for water meters.
Register Read Data	 A value provided by the meter that is shown on the meter's faceplate, and hence can be validated by the customer by visual inspection of the meter. This can include: Cumulative Consumption Register Read – total measured consumption since the meter was manufactured or refurbished (Typical units of measure include Gallons/cubic foot or cubic meter for water meters.) Time of Use Consumption Register (total consumption during a specific time of use window)



1.2 Roles and Responsibilities

The activites to be carried out are detailed in each section of this SOW. The table below defines the associated roles and responsibilities at a high level. References the corresponding sections of the SOW are included when a more detailed description is required.

Responsibility	Role
Establish detailed project plan	Project Managers
	(Harris/Lawrence)
Ensure resources are available to carry out tasks defined in section	Project Manager
6.4.1 Customer Resource Involvement	(Lawrence)
Ensure resources are available to perform work as defined in SOW	Project Managers (Harris)
Ensure proper communication between Harris business units	Project Managers (Harris)
Ensure assistance and cooperation by Third Party Vendors	Project Manager
	(Lawrence)
Participate in weekly project calls	Project Team
	(Harris/Lawrence)
Ensure all VPN Tunnels are opened for communication between integration points	IT (Lawrence)
Perform initial install on Customer environment (in the Harris Data	Infrastructure specialist
Center)	(Harris)
Install Software Modules as per section 2.1 of SOW	SmartWorks Consultants (Harris)
Provide deliverables as defined in section 2.4 of SOW	SmartWorks Consultants (Harris)
Provide AMI infrastructure and meter data	Metering (Lawrence)
Provide input data for integration points as defined in section 4 Software Integrations	Project Team (Lawrence)
Install and configure integration points as defined in 4 Software Integrations	SmartWorks Consultants (Harris)
Engage in tasks defined in section 6.4.1 Customer Resource Involvement	Project team (Lawrence)
Perform configuration updates once training has been delivered and User Acceptance Testing is completed	Project team (Lawrence)

1.3 Related Documents

Related documents to the SOW are:

1. This Statement of Work is Schedule C of the HARRIS-SMARTWORKS SAAS AGREEMENT BETWEEN N. HARRIS COMPUTER CORPORATION AND THE CITY OF LAWRENCE.



2 SmartWorks Compass Implementation Scope

The scope of this Statement of Work is to implement the Harris Software solution for Customer and to train the key people on the operation of the Harris Software. Customer will, at a yet to be determined date, procure and install their respective advanced meters and supporting network infrastructure.

2.1 Software Modules

The following Harris Software modules will be installed in the Harris DataCenter and configured as part of the scope of this engagement:

- 1. SmartWorks Compass, including the following modules:
 - MeterSense MDM
 - Distribution Optimization
 - Process Automation
 - Weather
- 2. CustomerConnect, including the following modules:
 - HomeConnect

Harris will deploy two instances of the Harris Software in Hosted environment: 1 Test instance and 1 Production instance. CustomerConnect will be installed on a separate server. The Harris Software will be capable of importing, processing and storing thirty six(36) months of data for hourly residential meters from 35,000 water meters and will be sized appropriately to manage this volume of data. (Server sizing will accomodate normal organic utility growth in the 2%-5% range) An archive and purge process will be used for data older than 36 months. Archived data will be recoverable for no additional fee.

A set of test meters in the production environment will be defined by Customer as being eligible for testing disconnect/reconnect functionality. This will occur as soon as practical after the selection of the AMI vendor, within the timelines defined in section 6.3.

2.2 SmartWorks Compass Modules

At the end of the implementation, Harris will have delivered the Harris Software as described in this section.

2.2.1 MeterSense MDM

MeterSense MDM stores, manages and maintains data identified in section 4, **Software Integrations**.

After installation of MeterSense MDM by Harris, meter reads validation routines (VEE – Validate, edit, estimate) as defined in **SmartWorks User-Guide VEE** will be available for configuration. Customer will also have access to core MDM reports. Data will be presented on the core reports based on:

- modules identified in this Statement of Work
- availability of the data described in section 4, **Software Integrations**

SmartWorks Compass SOW – City of Lawrence



No custom reports were identified at the time of writing this Statement of Work.

2.2.2 Distribution Optimization Module

Harris will install and configure the Distribution Optimization module.

Functionality delivered:

- Enabling of Distribution Optimization reports (non-electric):
 - Meter Usage Comparison
 - Loss Analysis
 - Line Graph Analysis
 - Coincident Peaks
 - Continuous Usage report (water)
 - High Water Usage (water)

Assumptions and prerequisites

- Hourly or sub-hourly interval data must be loaded into the system for all metered end points. The meter reads must be provided by one of the reading system documented in the Software Integrations section.
 - To enable accurate Loss Analysis, meter reads for parent meters (e.g. feeder, plant meters, etc) must be available
- To enable the Loss Analysis functionality, one of the utilitie's System of Record documented in the Software integration section must provide:
 - a list of parent and child meters
 - a date-driven relationship (meter hierarchy) with corresponding multipliers

2.2.3 Process Automation Module Functionality

Harris will install and configure the Process Automation module, including the rules editor user interface.

The Functional and Process Training will include a Process Automation module Overview session of up to four(4)hrs. The Process Automation Module is a technical module on rules development designed to enable participants to become familiar with the functionality of the Rules Engine. This module is of particular interest to department leads, who will identify opportunities for business process optimization. The topics include:

- 1. Overview of Rules Engine as a tool, Lifecycle of a Rule, Rule Components
- 2. Using the Rules Engine to run rules and evaluate the results

Advanced training will also be provided as defined in section 2.3 of this SOW.



In addition to training, the project scope includes up to 20hrs of services to define requirements related to the integration of KPI metrics currently used in the SCADA dashboard (e.g. max day hour by customer class and individual customers). This level of effort includes:

- KPI Discovery session(s) with Customer
- Requirement document
 - Integration requirements
 - Expected outputs
 - Effort estimates
- Calls with Customer to validate requirements (document iterations)

At the end of the KPI discovery session, it is possible that the recommendations include solutions that would leverage modules other than the Process Automation module.

Upon request, Harris can provide additional services for the development and implementation of complex rules (rules that require a level of effort greater than 4hrs to develop and test), with the additional fee based on the scope of services for this effort.

2.2.4 Weather Content

Harris will install and configure the Weather content module and enable the overlay of observed weather data on usage reports.

With the Weather Content module, the Harris Software will integrate weather data services with daily feed of observed weather data received from the Weather Network weather station determined to be closest to Customer's location.

2.3 Compass and Connect Training and Discovery Sessions

Harris will deliver the following training courses:

Overview Training Session (1 day Remote)

The Overview Training is held with the core user group when initial configuration is complete. This session is held remotely and provides users an overview of current system functionality.

Upon conclusion of this session, users are able to dive into the Compass and Connect platforms and understand existing configuration.

Discovery Session (3 days onsite)

The purpose of the discovery session is to demonstrate existing functionality and elicit feedback for updates to functionality. Emphasis is placed on understanding existing customer business process and the impact to the process due to Compass is documented in the Functional requirement documents.

Functional and Process Training

Option A (3 days onsite – Functional training, remote UAT support)

During the onsite Functional and Process Training, up to 10 users will be provided training on the Harris Software. System Navigation will be reviewed as well as the main business functions of the solutions.

SmartWorks Compass SOW – City of Lawrence



Option B (remote Functional training, 3 days onsite UAT support)

Alternatively, if the customer prefers, functional training can be scheduled remotely with up to 7 individual WebEx sessions scheduled over a 2 week span in order to provide training at a slower pace. With option B, the 3 days onsite will be provided closer to the end of the UAT phase (User Acceptance Testing) in order to help close out activities and provide ad-hoc training if training is provided remotely.

Training includes system administration and maintenance. Following the functional training, the Business processes and use cases applicable to Customer will be reviewed.

Session	Suggested Attendees
Harris Software Overview	All Compass Users (Core Team, Customer
	Service (CS), Billing, Metering, IT)
Administrator Functions	Core Team, IT
Data Setup	Core Team, including Billing & Metering
Meter Reads & Validating, Estimating, Editing – VEE	Core Team, including Billing & Metering
Using Maps and Reports	All Compass Users (Core Team, Customer
	Service (CSR), Billing, Metering, IT
Advanced Reporting	Core Team, IT
System Administration	Core Team, IT
Billing & Customer Service Functions	Core Team, Billing and Customer Service
	(CSR)
Process Automation module Overview	Core Team, Metering

Advanced Process Automation Module Rules Training (2 days onsite)

The Advanced Process Automation Rules Training course is a two day technical course on rules development designed to enable participants to become competent at developing rules for MeterSense and Compass modules.

The topics include:

- 1. Overview of Rules Engine as a tool, Lifecycle of a Rule, Rule Components
- 2. MeterSense Data Schema/Data Flow/ Rules Performance Management
 - a. Applications of Rules
 - b. AMI System Performance
 - c. Responding to VEE exceptions
 - d. Meter Events and Alarms
- 3. Data Analysis
- 4. Data Safety Practices

The course will be delivered following rules design themes so that participants understand the construction of rules and can apply those design themes to any functional application and will include hands on exercises and an exam.

The Advanced Process Automation Module Rules Training course will be delivered to up to 2 participants. The intent is to train individuals within an organization to create a "rules engine

SmartWorks Compass SOW – City of Lawrence



technician", who can take business requirements from business lines develop a rule that meets the business needs. An organization should only need 1 or 2 technicians.

Competency with SQL and a basic understanding of databases are pre-requisites for participants in the Advanced Process Automation Module Rules Training course.

Customer should also have a number of "rules champions", who represent a business unit. The rules champions will be trained on the capabilities of the Rules Engine during the Functional and Process training course. These business unit rules 'champions' would be responsible for finding ways to improve their business and then passing the requirements to the rules engine technician (i.e. the 1 or 2 people trained by this course). The technician creates the rule. The champion tests and signs off on the rule.

2.4 **Deliverables**

The following list identifies the key deliverables associated with this project:

- SmartWorks Compass Functional and Integration Requirements Document
- Advanced's CIS Integration to MeterSense MDM & Customer Connect Business Requirements Documents
- Harris Software Testing Plan
- Harris Software installation in Hosted Environment
- Harris Software configuration
- Harris Software integration
- Harris Software Training Delivered

The following list identifies the key work product documentation associated with this project:

- Project Schedule
- Acceptance Criteria Document
- SmartWorks Compass Test Cases
- Advanced CIS to Compass & Customer Connect Integration Test Cases
- Go-Live Approach Document
- Harris Software Test Results
- Harris Software User guides

2.5 Areas Out of Scope

Anything in this section and not listed in the above "Areas within Scope" is considered out of scope for this SOW. Specific items that are currently out of scope of this engagement include:

• Development and implementation of custom reports and custom rules not identified in this SOW.



3 CustomerConnect Implementation Scope

The scope of this project is to implement CustomerConnect for Customer and to train the key people on the operation of the CustomerConnect solution.

The project scope includes:

- 1. Install and configure the HomeConnect module;
- 2. Train Customer staff.

3.1 CustomerConnect Modules

The following CustomerConnect modules will be installed and configured in a hosted environment as part of the scope of this engagement:

HomeConnect

Harris will deploy two instances of the CustomerConnect solution in the Hosted environment: one Test instance and one Production instance.

3.1.1.1 CustomerConnect Platform

The CustomerConnect platform module is the administrative framework that the entire suite will work from.

List of Features:

- Administration of users
 - Search for an Existing User
 - o Administrators Setup
 - o CSRs Setup
 - Make changes to a customer profile
 - o Integrate through CIS for direct login
 - Disallow access to certain VIP accounts (i.e. Water Director/Mayor/etc.)
- Configure password policy
- Integration of Google Analytics
- View and Manage Account Information
 - View Billing Information
 - Update Notification Settings
 - Login/out of CustomerConnect
 - Switching of accounts for customers with multiple accounts
- Library Widget
 - o Create a New Library Item
 - o Edit an Existing Library Item
 - Feature an Existing Library Item
 - Unpublished an Existing Library Item
 - Remove an Existing Library Item
 - o End user view of any published Library Item

SmartWorks Compass SOW – City of Lawrence



- Manage Target Audiences
 - Search for an Existing Target Audience
 - Create a New Target Audience
 - Edit Target Audience Members
 - Remove an Existing Target Audience
- Manage Notifications (email and UI notification included in scope)
 - Create a New Notification
 - View/Edit/Remove an Existing Notification
 - o Reschedule a Notification
- Manage Time of Use (TOU) Windows and Rates
- Manage Appearance of CustomerConnect Pages
 - o Customize the General Appearance
 - Customize the Header
 - Customize the Navigation Menu
- Manage Contents
 - Customize the Page Sections
 - Customize the Marketing Footer

3.1.1.2 HomeConnect Application Module

HomeConnect consists of functionality that relates to the evolving requirements of the smart grid, including display of usage history in graphical and tabular formats, content targeted for the education of users towards reducing their bills, targeted alerts and notifications based on defined thresholds and general managing of the user's home environment.

- Rate Period Indicator (For Dynamic Pricing)
- Usage Report
 - Temperature Overlay
 - Previous Period Overlay
 - Average Usage Overlay
 - o Cost/Usage Based Reporting
- Usage Based Threshold Notifications
- Education Library
- Rate Comparison
- Consumption Tracker
- Dynamic Pricing Definition (Time-of-use based pricing display)

As part of the HomeConnect implementation the following modules will be installed and configured;

- 1. DataSync with CIS
- 2. Weather Data
- 3. Server Environment
- 4. Security Certificates



- 5. Integration with source of read data (AMI)
- 6. Single sign on or registration

3.2 CustomerConnect Training

Harris recommends that CustomerConnect training be provided to CSRs and solution administrators.

Harris recommends that solution administrator has the following skills and knowledge:

- Substantial understanding of the business aspects of the portal, and
- Substantial understanding of the data presented.

The following training sessions (all via WebEx) will be provided to Customer as part of this engagement:

- HomeConnect Solution Overview Session (2 Hours)
- CustomerConnect Administration training Session (4 Hours) *Recommended maximum of 10 trainees*
- CustomerConnect Platform Solution End-User Training Session (4 Hours)

As part of the training, Harris will provide user manuals.

3.3 **Project Deliverables, Milestones and Work Products**

The following deliverables, milestones and work products are included in this project. **Deliverables** are items created during the engagement that may require formal review and approval by the customer. **Work products** are items created during the engagement that are reviewed by the customer but do not require formal approval by the customer.

3.3.1 Deliverables

The following list identifies the key deliverables associated with this project:

- Functional and Integration Requirements Document
- CustomerConnect Platform Installation
- HomeConnect Software Installation
- Software Configuration
- Functional User Training

3.3.2 Work Products

The following list identifies the key work product documentation associated with this project:

- Acceptance Criteria Document
- o Project Schedule
- Test Case Scenario Checklist
- o Testing Plan
- o Training Plan
- o Training Manual
- Go-Live Approach Document

SmartWorks Compass SOW – City of Lawrence



3.4 Areas Out of Scope

Anything not listed in the above "Areas within Scope" is considered out of scope for this SOW.



4 Software Integrations

During software integration phases:

• Customer will act as or provide a systems integrator who will be responsible for overseeing the entire integration component of this project.

The systems integrator role consists in securing, as required and in a timely fashion, the assistance and cooperation of third party vendors. A change order may be requested if a third party vendor is unavailable or non-cooperative and causes an impact to the project schedule or effort.

• Harris will provide advice and recommendations regarding its experience and leading practice as well as ensure that the data integration functionality in Harris Software is working.

Harris will make a reasonable attempt to provide sufficient lead time when making requests for assistance from third party vendors. When deemed appropriate by Customer, Harris will also work directly with third party vendors if direct communication will result in efficient execution of the project.

Any version changes to integrating systems that occur during the project will be reviewed by Harris and may require a change order if integration updates or re-testing activities are required.

The following Integrations are included in the project scope:

4.1 AMI Head End System

The AMI Head End System will be identified by Customer after initial project start. Harris will engage in the AMI integration phase of the project once the AMI is selected and the AMI project is kicked off.

The Harris Software will integrate with the AMI Head End System to:

- Import of the current day's readings as well as older reads that were previously missed. Interval
 and register read data will be received from AMI using the following file formats: CMEP,
 AMRDEF or Compass generic file format.
- Import of meter event data (meter alarms) from AMI using a CMEP or AMRDEF file format or Compass generic file format. MultiSpeak[®] methods can also be used if available. Specific alarms will be defined between AMI and Customer.
- Where the functionality is supported by the AMI meters, the Harris Software will integrate with the AMI to perform On-Demand reads and Remote Connects & Disconnects using MultiSpeak[®] methods.



If file formats or API calls not included in the above list are required to complete the AMI integration, the level of effort will be evaluated and a Change Order may be issued if the level of effort required is greater than the level of effort estimated to support the formats listed above.

If files are used for providing meter data, the files are expected to be delivered by 5:00am or an agreed upon time suitable to Harris and Customer in order for the Harris Software to perform the VEE process. The AMI may deliver files at multiple times during the day in order to collect the maximum amount of meter data.

Action	Responsible Party
Install AMI Network and Infrastructure	AMI/Lawrence
Provide meter reads in flat file	AMI/Lawrence
Provide meter events in flat file	AMI/Lawrence
Provide meter events using MultiSpeak methods®	AMI/Lawrence
Provide MultiSpeak [®] url for remote actions	AMI/Lawrence
Configure MDM MultiSpeak url for outbound messages	AMI/Lawrence
Implement meter data load interface	SmartWorks
Implement MultiSpeak [®] remote actions	SmartWorks

4.2 Customer Information System - Advanced's CIS Infinity (v4.x)

The City requires an integration between Advanced's CIS Infinity and SmartWorks Compass MDM. Harris will engage in the CIS integration phase of the project once the AMI is selected and the AMI project is kicked off.

The interface will support near real-time exchange of information between CIS Infinity and MeterSense MDM system, such as account and meter data synchronization, and will support the ability to import readings for billing purposes, retrieve readings on demand and trigger disconnect/reconnect actions in the AMI system.

Action	Responsible Party
Install CIS REST API	AUS
Install MeterSense MDM web services	SmartWorks
Implement account and meter data synchronization mechanisms	AUS/SmartWorks
Implement Meter Reading interface	AUS/SmartWorks
Implement Request Meter Reads on Demand functionality	AUS/SmartWorks
Implement CIS to MeterSense MDM Disconnect/Reconnect requests	AUS/SmartWorks

The specific system modifications required to support the various components of the MeterSense MDM interface will be determined during the Initiation and Build process.

4.2.1 CIS Synchronization Integration between Advanced's CIS Infinity and SmartWorks Compass

Import of CIS customer data into the Harris Software (MDM) for validation of AMI data. A daily full periodic synchronization activity will occur.



- Customer will be responsible for identifying and validating the data required for data synchronization
- Harris will install and configure the CIS datasync integration based on Customer requirements

The minimum information to be provided from the CIS will include the following:

	Compass	CustomerConnect
List of meters with identifiers, meter types, etc.	Х	
List of location(account) numbers, service addresses	Х	
Meter latitude and longitude information	Х	
Customer ID/Location ID.	Х	
List of account number, service addresses, list of meters, Account class/billing cycles information/billing schedules.	Х	
A date-driven cross reference between meter and location number (i.e. when a meter is installed and removed from a location)	Х	Х
Customer Account information (such as account name, account ID, occupant code, address, customer name, etc)		Х
A date-driven cross reference between account and location (i.e. customer move in/out information)		Х
Billing information (Bill codes, Bill Dates, last bill amount, last read date etc.)		Х

This integration will be established using a combination of MultiSpeak[®] web service and the Advanced REST API. Depending on Customer requirements, the synchronization will occur between 1 to 3 times per day and will be scheduled to occur after the Customer database has been updated.

4.2.2 CIS Synchronization Integration between Advanced CIS Infinity and AMI

An integration with the AMI head end system for the purpose of facilitating synchronization of the meter status between the AMI head end system and CIS Infinity enables the identification of meters that should be transmitting data to the MDM. It is therefore assumed that a direct integration will be made between the AMI head end system and the CIS.

The interface will support the synchronization of the meter remote data between CIS Infinity and the AMI system. The interface will be using the file transfer technology and will be configured in CIS Infinity using the Advanced Interface Manager.



4.2.3 Billing Interface (MultiSpeak®):

Customer will bill using register reads, not time based determinants (i.e. interval data will not be used for the purpose of billing).

The Harris Software will import billing request information and export meter register reads. Advanced's CIS Infinity and the Harris Software will use a MultiSpeak[®] web service (synchronous SOAP call) call to request and receive the latest available read. Advanced's CIS Infinity will apply the correct rate to each register.

4.2.4 Service Order Integration

The Harris Software will have an interface between SmartWorks Compass and Advanced's CIS Infinity that allows the creation, modification or closing of service orders.

As part of the scope of this integration, Harris will deliver up to 3 business rules that will each enable the automation of 1 ServiceOrder and 1 resulting action. For example:

- Trigger OnDemand reads as part of the MoveIn/Move out SO
- Trigger the creation of a new SO as a result of a leak detection

Training will be provided on the Process Automation Module as described in section 2.2.3.

4.2.5 Remote Actions

If the AMI meters include functionality to perform the following remote actions, The Harris Software will also integrate with the CIS to broker:

- OnDemand reads from meters back into CIS Infinity. When requested by a Customer Service Representative (CSR), from the Reading History tab of the AccountView form in CIS Infinity a read will be displayed on the screen, an event will be logged and the date/time of the reading will be recorded in CIS Infinity. An identifier of the person requesting the read will also be recorded
- Remote Disconnect/Reconnect triggered from CIS Infinity . When requested by a Customer Service Representative (CSR), from the Collections - Disconnect tab of the AccountView form in CIS Infinity a disconnect or reconnect action will be sent to the AMI system. The request result will be displayed on the screen, an event will be logged and the date/time of the request will be recorded in CIS Infinity. An identifier of the person requesting the disconnect/reconnect will also be recorded.

4.3 CustomerConnect Infinity.Link SSO Integration

The City requires a single sign on (SSO) integration from Infinity.Link customer web portal to the SmartWorks CustomerConnect web portal. This will allow users of the Infinity.Link customer web portal to have the benefit of a single sign on experience when accessing SmartWorks CustomerConnect web portal.



Note: this single sign on process will replace any registration processes within CustomerConnect.

Action	Responsible Party
Provide information about CustomerConnect web portal (documentation and access	SmartWorks
information)	
Add SSO capabilities from Infinity.Link to CustomerConnect web portal	AUS
Configure the interface on client's system	AUS/SmartWorks

4.4 CustomerConnect / MDM Integration (MeterSense)

CustomerConnect will integrate with MeterSense MDM to receive customer usage data using an API prescribed by Harris.

4.5 Weather Integration

The Harris Software will integrate weather data services with daily feed of observed weather data received from the Weather Network weather station determined to be closest to Customer's location.

The following weather data, if provided by the weather station, will be imported into the Harris Software:

- Temperature (Hourly)
- Humidity (Hourly)
- Wind Speed (Hourly)
- Wind Direction (Hourly)
- Weather Conditions (Hourly)
- Precipitation (Daily)

This data is automatically downloaded from Harris's data provider for a weather station or stations in the customer's service area, and is automatically inserted into the Harris Software database.

Action	Responsible Party
Determine weather network weather station closest to Customer's location	SmartWorks
Implement automated import of weather data	SmartWorks



4.6 **Distribution Optimization**

For the purpose of water loss analysis, it is assumed that SmartWorks Compass will receive meter hierarchy information as indicated as prerequisite in section 2.2.2. A system of record will need to be identify by Customer to provide

- parent/child meter relationships
- active and inactive dates for the historical relationships

This integration will be established using a database view that will be queried by The Harris Software.

Action	Responsible Party
Provide parent/child meter relationships with active/inactive dates using	Lawrence
views or flat files from system of record (e.g. GIS, SCADA)	
Implement datasync of parent/child relationship	SmartWorks

4.7 SCADA integration (Wonderware)

Supply data for production meters will be imported into MeterSense from Customer's SCADA system. The data will be a delimited flat file based interface, with the file specification defined during the Discovery Phase of the Implementation.

4.8 Geographic Information System (GIS)

The Harris Software will be configured so that meter data will be overlaid on top of one or more ESRI "Base Maps" via url live link. With this capability, the Customer will be able to view meter data together with their other data layers within The Harris Software.

Customer will create URL and provide a custom base map to SmartWorks for configuration of SmartWorks Compass. This scope of integration assumes Customer is hosting ESRI on a web server and can provide a URL.

Any further GIS integration is not included in the scope of services for this project.

Action	Responsible Party
Provide url for ESRI base map	Lawrence
Configure base map based on url provided	SmartWorks



5 Project Management Approach

5.1 Communication/Relationship Management Approach

Communication Management is the cornerstone of any project and a well-structured communication plan is a must from the beginning. Regular, or ongoing, communications include those opportunities to communicate with project team members, sponsors, steering committee members, and other key stakeholders on a regular basis. These types of communication include regular status reports, scheduled project team meetings, monthly updates with the steering committee or with executive project sponsors on a project.

During the Project Kick-Off meeting, a Communication Plan will be presented and reviewed with Customer staff based on the following Communication Strategy:

Goals of Communication Strategy

- Keep people informed on project status
- Focus on communication to effectively prepare Customers for their software rollout
- Focus on communication to build support for project
- Monitor effectiveness of communication

Guiding Principles

- Clear messages using simple language
- Openness, honesty, credibility, and trust in all communications
- Two-way communication, with feedback valued and asked for
- Project Team and Management ownership of the communication program
- Ongoing commitment to the communications process

Effective Communication Guidelines

- There are multiple audiences for project communications
- Communication needs to be
 - Tailored to specific groups
 - Regular and informative
 - Real-time and relevant
- Communication content needs to be of interest to the target audience



What	Who / Target	Purpose	When / Frequency	Type/Method(s)
Project Kick Off	All stakeholders	Communicate plans and stakeholder roles/responsibilities.	At or near Project Start Date	Meeting
Status Reports	All stakeholders and Project Office	Update stakeholders on progress of the project.	Weekly	Distribute electronically using agreed Status Report template
Team Meetings	Entire Project Team.	To review detailed plans (tasks, assignments, and action items) and risks.	Weekly for entire team.	Meeting Review Project Plan, Status Reports, and Risk Log.
Project Management Status Meetings	Sponsor(s) and Project Manager (Harris, Customer, AMI Vendor)	Update Sponsor(s) on status and discuss critical issues. Seek approval for changes to Project Plan.	Weekly	Meeting
Executive Sponsor Meetings	Executive Sponsor(s) and Project Manager	Update Sponsor(s) on status and discuss critical issues. Seek approval for changes to Project Plan.	Monthly	Meeting

Following is the communication plan for the project:

5.2 Work Management Approach

Work will be managed through the use of the Project Schedule in MS-Project format. The Harris Project Manager will have the responsibility to create and maintain the project schedule for the modules and integrations listed in this Statement of Work. It is expected that the Customer Project Manager will work in conjunction with the Harris Project Manager to ensure that key Customer activities that impact the project are also contained in the project plan.

During and after the Solution Acceptance Testing phase, the Harris TeamSupport solution will be used to track project issues such as bugs or other lower level action items. The entire project team (Harris / Customer) will have access to TeamSupport.



5.3 Change Management Approach

This document serves as the complete understanding, between Customer and Harris, as to what the current Statement of Work entails. Customer and/or Harris may propose changes to the scope of work defined in this document ("Change"). The Change Order Form (Appendix A) must be used for all Change requests. Harris shall have no obligation to commence work in connection with any change until the fee and schedule impact of the change is mutually agreed upon in a written Change Order Form signed by the designated representatives from both parties.

Upon a request for a change, Harris shall submit the standard Change Order Form describing the change, including the impact on the schedule, budget, scope and expenses to the Customer. The Change Management Process that will be employed is defined below:

- Identify and document proposed change
- Assess impact of proposed change
- Estimate required effort / cost of proposed change
- Discuss change with the Customer and receive verbal approval
- Submit Change Order for written Approval / Disapproval
- Communicate Change Order Decision
- If Change Order is Approved:
 - o Assign responsibility
 - Harris to update project plan as needed
 - If there are project delays due to Change Request, Harris may create subsequent Change Requests to address those delays
 - Monitor and report progress

Within fifteen (15) consecutive business days of receipt of the Change Order Form, Customer shall either:

- Accept the proposed change by signing the Change Order Form, or
- Reject the proposed change and inform Harris Project Manager via email.

If Harris is advised not to perform the change, or in the absence of Customer acceptance or rejection within 15 days, then Harris:

- Will not perform the proposed change and will proceed only with the original services
- The Customer will not accept any expenses without prior written approval.

5.4 Risk Management Approach

Risk Management Planning is an important part of project management and a core component of the Harris Project Implementation Methodology. Risk Management planning is about defining the process of how to engage and oversee risk management activities for a project. Having a viable plan on how to manage risk allows one to mitigate risk versus attempting to decide in the midst how to handle a risk. The earlier Risk Management planning is engaged within the project increases the probability of success of all risk management activities. Risk Management planning will be initiated at the start of the project by having the initial discussion with Customer prior to or during the Project Kick-off meeting.

SmartWorks Compass SOW – City of Lawrence



Risks can be raised by any project stakeholder, including project team members, the client, third-party integrators, or vendors.

Risks will be entered on the Risk Log and categorized by type and priority. The Project Manager will investigate the Risk and, if necessary, will update the Risk Log with background information to place the Risk in perspective.

At a minimum, the following information will be captured and tracked for all Risks:

- RISK ID each risk should have a unique ID
- TITLE short description of the risk (usually a few words or a sentence, helpful when reporting risks)
- DESCRIPTION complete description of the risk, the more details the better
- IMPACT impact to the project and/or business in terms of money, time, and/or quality
- PROBABILITY indicate the probability of the risk
- SEVERITY risk severity (typically values could be "critical", "high", "medium", "low")
- TYPE type of risk (e.g. technical, process, organizational, etc.)
- RISK MITIGATION PLAN detailed description of actions (including dates and owners) required mitigating the risk.
- STATUS current status of the risk (typical values are "open" or "closed")

The following Risk Matrix will be used to establish the severity of risk:

۲	High (3)	3	6	9
PROBABILITY	Medium (2)	2	4	6
OBA	Low (1)	1	2	3
РК		Low (1)	Medium (2)	High (3)
IMPACT				

Throughout the duration of the project, as risks are identified they will be added to the Risk Log and will be reviewed at bi-weekly Status Meetings with the team to determine the possibility of occurrence and the best plan for mitigation.

Based on Harris' experience, the following have been identified as dependencies that could have negative effect on project timeline, cost and/or scope and could become potential risks:

- VPN ports not opened for Harris personnel and for communication between integration points
- AMI not ready on time, or not sending the data

SmartWorks Compass SOW – City of Lawrence Page 26



- Data source not ready for Datasync
- Resources not available to provide required information

Early engagement and commitments on timelines by all parties can significantly reduce risks linked to the above dependencies.

5.5 Acceptance Management Approach

In collaboration with Customer, Harris will develop and maintain a central listing of all Deliverables and Work Products to be completed throughout the project **"Deliverable Acceptance Criteria Document"**. The Deliverable Acceptance Criteria Document will also set forth the acceptance criteria for each deliverable (**"Deliverable Acceptance Criteria"**).

A baseline version of the Deliverable Acceptance Criteria document will be created through a combined effort between Harris and Customer during the Solution Definition phase. The Deliverable Acceptance Criteria Document will be reviewed with Customer regularly and updated to record the approval of the deliverables as they are accepted. The approvals of the deliverables in the Acceptance Criteria document will constitute final acceptance for each line item deliverable.

A core component of the Deliverable Acceptance Criteria Document will be the execution of the test plan and test cases. The Testing Plan, also created in the Solution Definition phase, and the Test Case Scenarios, created during the Solution Construction phase, are customized specific to the implementation for Customer. The Test Plan and Test Case Scenarios are used for testing and will be provided to Customer for its own review and testing of the system. Harris implementation team and the Customer staff will work as a team to ensure that exhaustive testing is carried out. During the Solution Validation phase, when the system testing is being executed, the project team will be meeting to review the testing status and ensure that scheduled testing is being carried out.

Once system testing has been completed, and the Customer staff has been trained on the system, the Customer staff will have the necessary tools to review the system for acceptance. Customer will have access to its own instance of the Harris Software, loaded with its data, to train and test on. The SmartWorks Consultant assigned to Customer will provide the documents and training of the system to the staff. Training will be conducted onsite and using WebEx sessions, phone calls and documentation when needed.



6 Delivery Approach

6.1 Implementation Approach – Phases, Deliverables, Key Milestones

Based on Harris' understanding of Customer requirements and Harris' experience gained through the implementations of the Harris Software Solution at various Customers across North America and to ensure the successful implementation of the Harris Software Solution at Customer, the Harris Project will leverage Harris' Implementation Methodology which has been honed and perfected over the company's long history to successfully guide project implementation from Definition to Go-Live.

6.2 Implementation Methodology

The Harris Methodology is based on the following guiding principles:

- Promote and foster customer ownership of solution;
- Establish and maintain consistent and regular touch-points with Customer;
- Ensure that project performance is visible, measurable, tracked and risks identified and mitigated No Surprises!; and
- Seek to minimize customer cost and time while still achieving engagement objectives.

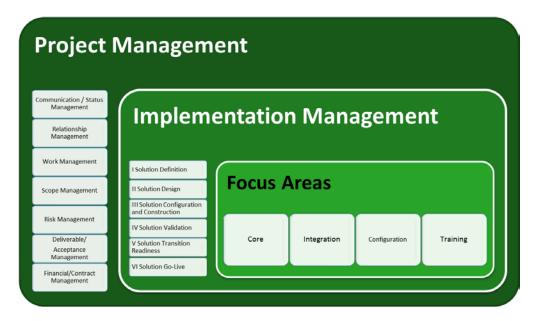


Figure 1: Implementation Methodology



The Implementation Methodology consists of two main areas: **Project Management** and **Harris Software Implementation Management** where each has associated (where applicable):

- 1. Processes / Checklists / Matrices that define how to operate;
- 2. Deliverables that are formal outputs that require Customer sign-off;
- 3. Work Products that are outputs produced as part of the work required to achieve the desired engagement goals; and
- 4. Tools / Assets that are leveraged to produce defined outputs.

The **Project Management** area defines how Engagements will be managed. It includes:

- **Communication/Status Management** aimed at establishing internal and external communications as well as monitoring and communicating engagement status and effort spent;
- **Relationship Management** aimed at measuring the pulse of Customers and partners;
- Work Management aimed at capturing and monitoring effort, cost and work to be performed;
- **Scope Management** aimed at defining and controlling project scope;
- *Risk Management* aimed at planning, mitigating, tracking and monitoring risks;
- **Deliverable/Acceptance Management** aimed at ensuring that expected deliverables are delivered and accepted; and
- *Financial/Contract Management* aimed at monitoring project financial health.

The **Implementation Management** area defines the Implementation Phases and associated work products and deliverables that are part of this engagement. The implementation phases are defined in the following table:

Implementation Phases	Objectives	Key Work Products and Activities	Deliverables	Onsite
Initiation and Build (Pre-AMI) Key Milestones • Kick-Off Meeting Held	 To Kick-Off engagement and establish successful working relationship. To install and make MDM software available To support CIS discovery session 	 Kick-Off Meeting Physical Architecture Recommendation 	 Installation to non- production 	
Initiation and Build (AMI Available) Key Milestones • Project Plan Reviewed/Updated	 To obtain detailed agreement on Project Plan To perform base configuration work 	 Implementation Questionnaire Acceptance Criteria Document Initial Configuration complete 	 Training Plan Test Plan 	



Implementation Phases	Objectives	Key Work Products and Activities	Deliverables	Onsite
 Analysis Key Milestones Integration Documents signed Functional Requirement Documents signed 	 To demonstrate base configuration functionality Conduct discovery workshops To obtain an agreement on What is remaining to be delivered 	• Discovery Workshop(s) Summary	 Integration Requirements Document Software Overview Training Session (3 Hours via WebEx) 	• 3 days (Discovery)
Development Key Milestones • Solution Feature / Code / Configuration Complete	 To configure according to requirements and build the solution components To write associated test cases that customer would execute for acceptance of the solutin. 	 Test Scenarios / Cases User Acceptance Test Scripts Base Solution Installed and configured 	Go-Live Approach	
Testing <i>Key Milestones</i> • User Acceptance <i>Completed</i>	 To move the solution to a known state of quality and ready for deployment. To train customer on their solution. 	 Functional Testing Results Integration Testing Results User Acceptance Test (UAT) Results Accepted Solution per UAT 	 Functional User Training 	 3 days (Functional and Process Training) 2 days (Advanced Process Automation Training)
Deployment Key Milestones • Solution Live	• To move the solution into a production environment state and transition support to the operations team.	Solution Live	• Installation Acceptance	

To minimize project costs, the majority of project work will be performed at one of the Harris's locations except for key project activities such as Discovery Workshops where face-to-face is deemed more effective for a successful project. Throughout the project, SmartWorks project team will be engaged with Customer using WebEx sessions to review configuration work and provide remote support.



6.3 Implementation Timeline

The estimated duration to implement this scope is approximately 6-8 months after the kick-off of the AMI project based on our current understanding of the requirements.

The 6-8 months' timeline to implement the Harris Software approximately conforms to the following timeline for most implementations:

Timeline	SmartWorks Compass Phase
CIS Discovery phase	• Initiation and Build Phase (Pre-AMI)
AMI Project	Pause (until AMI project is kicked-off)
Month 0-2	Initiation and Build Phase (After AMI project kick-off)
Month 2-3	Analysis
Month 3-4	Development
Month 4-6	Testing Phase
Month 6-8	Deployment Phase

The actual duration and scheduling of project activities will be evaluated during the Initiation/Definition phase and a detailed project plan will be jointly created and base-lined at that time.

A baseline plan will be delivered within 14 calendar days of project kickoff meeting allowing Customer an opportunity to review project plan over the next 7 days. If Customer does not agree to proposed project plan, Customer and Harris will work collaboratively to develop a mutually agreeable plan within a reasonable timeline.

The project plan will include a project completion date (the date where project is completed as defined in section 6.6). The project plan will be reviewed periodically during the project and may be revised. Changes to the Project Completion date will require a Change Order.

6.4 Validation/Testing Approach

Systems Testing is an activity that is addressed through all Phases of the Harris Software Implementation Methodology but is the focus of the Solution Validation Phase.



To ensure that a quality Solution is delivered to Customer, the Implementation Methodology includes a Validation Phase focused on validating that the configured and developed Customer Solution performs per agreed upon requirements. The Validation Phase includes three main testing activities:

- **Functional Testing** to test the core Solution components (Configuration, Interfaces, Reports, and Modifications) against agreed upon requirements as defined in the Functional and Integration Requirements Document based on the test cases and scenarios developed during the construction phase.
- **Integration Testing** to test the end-to-end process based on business processes and scenarios developed during the construction phase.
- Solution Acceptance Testing to provide Customer the opportunity to validate that Solution behaves per agreed upon requirements as defined in the Functional and Integration Requirements Document based on the test cases and selected scenarios collaboratively developed with Customer during the construction phase. Solution Acceptance Testing sign-off per agreed upon criteria is necessary to move to GO-LIVE.

The progress for performing the three testing activities will be summarized in a table describing the test characteristics **"Test Matrix"**. At a minimum, the Test Matrix will include the following information:

- The test name
- The objective for performing the test
- A Description of the steps required to perform the test **"Test Script"**
- The expected result that will demonstrate the test is successful "Test Acceptance Criteria"
- The actual result observed after performing the test "Test Result"

Prior to commencing Functional Testing and Integration Testing activities, the Test Scripts and Test Acceptance Criteria will be documented in the Test Matrix by Harris using test scripts that have been defined by Harris.

While performing testing activities, the tester will update the Test Matrix with the Test Result and will make a determination as to whether the result meets the Test Acceptance Criteria.

Functional Testing and Integration Testing will be performed by Harris. Solution Acceptance testing will be performed by Customer with support from Harris.

6.4.1 Solution Acceptance Testing Procedure

Once Functional Testing and Integration Testing have been completed, and Customer staff has received Functional Process Training, the Customer staff will have the necessary tools to perform Solution Acceptance Testing.

Prior to commencing Solution Acceptance testing activity, the Test Scripts and Test Acceptance Criteria will be documented in the Test Matrix by Harris collaboratively with Customer.



Customer will have access to its own instance of the Harris Software, loaded with its data, to train and test on. The Application Harris assigned to Customer will provide the documents and training of the system to the staff. Training will be conducted onsite and using WebEx sessions, phone calls and documentation as needed.

Customer will have a defined period of time to perform Solution Acceptance Testing on the Software (including testing in a live production environment) (the **"Acceptance Testing Period"**). The length of the Acceptance Testing Period will be defined in the Detailed Project Plan. This Solution Acceptance Testing Period will begin upon formal written notification from Harris to Customer that the Harris Software has been configured and is ready for testing. During such Acceptance Testing Period, both Parties shall work diligently and dedicate the appropriate resources to conclude the evaluation in a timely and efficient fashion.

If the Software substantially meets the Functional and Integration Requirements Document (as mutually agreed by both Harris and Customer), and substantially satisfies the testing criteria set forth in the Solution Acceptance Test Matrix (together the **"Solution Acceptance Criteria"**)(as mutually agreed by both Harris and Customer), Customer will provide Harris with written acceptance notice thereof, and the date of such notice to be the **"Actual Solution Acceptance Date"**.

In the event Customer determines that the results of a test do not meet the Solution Acceptance Criteria, following the initial Solution Acceptance Testing cycle, Customer will provide Harris with written notice thereof, specifying in reasonable detail how the Software failed to meet the Solution Acceptance Criteria. If Customer delivers to Harris such notice of retesting, Harris shall make all necessary corrections, repairs, fixes, modifications, or additions to or replacements of all or any part of the rejected Software so that it conforms to and performs in accordance with the Solution Acceptance Criteria. Harris will have a defined period of time **"Correction Period"** to correct any deficiency, after which the Solution Acceptance Testing will be resumed. The Correction Period will be defined in the Detailed Project Plan.

In the event retesting is required by Customer, the Solution Acceptance Testing process will then be repeated.

Severity Level	Description
1	 System Down (Software Application, Hardware, Operating System, Database) Program errors where there is no reasonable alternative available to Customer to continue its business, operations or services utilizing Software Incorrect calculation errors impacting 10% of records Error messages preventing data integration and update
	 Performance issues of severe nature impacting critical processes Security Issues

The Customer shall not reject or fail to accept the Software based on any Severity 3 issues, as defined in the table below:



Severity Level	Description
2	 Program errors where there is a reasonable alternative available to Customer to continue its business, operations or services utilizing the Software Calculation errors impacting less than one-third of records Reports calculation issues Performance issues not impacting critical processes Usability issues Workstation connectivity issues (Workstation specific)
3	 Training questions, how to, or implementing new processes Aesthetic issues Issues where there is a reasonable alternative available to Customer to continue its business, operations or services utilizing the Software for a large majority of the cases Recommendations for enhancements on system changes Questions on documentation

In the event that Customer fails to notify Harris in writing within 15 days of any deficiency in a test result, acceptance shall be deemed to have occurred upon the expiration of the applicable Acceptance Testing Period. During the Acceptance Testing Period, Customer may in collaboration with Harris, acting reasonably, extend the Acceptance Testing Period, the Correction Period, and the Expected Solution Acceptance Date (such that the extended Acceptance Testing Period shall expire on the revised Expected Solution Acceptance Date).

6.5 **Customer Resource Involvement**

Harris strongly believes that a successful implementation project requires that both Customer and Harris resources work openly and collaboratively towards a common objective. As such, Customer's involvement will be required through all phases of the implementation project. Harris also believes that the involvement of key Customer resources will help with the Customer Change Management activities that are essential to obtain acceptance of the new solution.

The factors that will determine the size of Customer' team includes the following:

- The level and expertise of the each of Customer project Core Team members;
- The ability of Customer Project Manager to make decisions regarding the project;
- Whether current job-responsibilities will interfere with Core Team responsibilities;
- The amount of business reengineering that Customer determines is necessary; and



• The number of personnel that Customer will use to run their operation's system, which in turn affects the amount of training needed.

Based on Harris's experience with other clients, the following list outlines the possible anticipated involvement of Customer throughout the implementation project:

Phase I: Initiation and Build

- 1. Work with the Harris to develop the Project Schedule
- 2. Identifying users of the solution.
- 3. Complete the Implementation Questionnaire provided by Harris. This questionnaire provides Harris with the technical and environmental details required to configure the Harris Software.
- 4. Ensure that any third parties required for the success of this engagement have been informed and that they are ready to participate and contribute on an as required basis.
- 5. Installing VPN connection.
- 6. Assist with ensuring that The Harris Software is accessible from within Customer environment.

Phase II: Analysis

1. Ensure the staff members that have been identified to participate in Discovery session(s) are available on dates agreed to and scheduled.

Phase III: Development

- 1. Provide and ensure all required Technical Staff are available on dates agreed to and scheduled.
- 2. Create User Acceptance Detailed Plan.

Phase IV: Testing

- 1. Determine the appropriate staff to be trained.
- 2. Ensure the staff members that have been identified to participate in the training sessions are available on dates agreed to and scheduled.
- 3. Assist with Functional / Integrated Testing.
- 4. Conducting User Acceptance Testing.
- 5. Log issues found in the Harris TeamSupport system (a web based issue tracking system). The calls logged in TeamSupport will be addressed by Harris consultants per triage and priority.
- 6. Work with Harris to develop a Go-Live Plan Document

Phase V: Deployment

1. Assist in activities as defined within the Go-Live Plan Document.



6.6 Engagement Completion Criteria

The Implementation Engagement is deemed completed once the following criteria has been met:

- An agreed upon sample of AMI meters representing different meter types and location classes have been installed and tested during Solution Acceptance testing, within the 6-8 month project timeline indicated in section 6.3
- Solution Acceptance has been complete
- Harris Software Functionality within scope of this SOW has been deployed for a minimum of 30 calendar days "Post Implementation Grace Period"
- Severity Level 1 issues identified during the Post Implementation Grace Period have been addressed. The severity matrix table presented in section 6.4.1, defines the severity level 1 issues

Customer will be transitioned to support once the Engagement Completion Criteria has been completed.



7 Assumptions

The Services, fees and delivery schedule for this engagement are based upon the following assumptions:

- 1. This SOW defines the scope of work for Harris Utilities and does not include any work or expense required from other Vendors including GIS, AMI etc.
- 2. This engagement currently has, and will continue to have, the support of senior Customer management and will be assigned sufficient priority with respect to other project to ensure its success.
- 3. Customer will assign a lead to act as an internal resource and guide throughout this engagement.
- 4. Customer will secure the appropriate staff in a timely fashion in order to discuss or review the various materials produced when required, provided Harris gives reasonable notice of such request.
- 5. Customer agrees to facilitate any required logistics between additional vendors, Customer resources and SmartWorks for the fulfillment of this agreement.
- 6. Customer will secure, as required and in a timely fashion, the assistance and cooperation of Third Party Vendors (e.g. AMI, GIS) to ensure a successful implementation. A Change Order may be created if the Third Party Vendor is unavailable or non-cooperative and as such results in an impact to the schedule or effort with prior written approval from the Customer.
- 7. Third Party Vendors Solutions are able to provide information required by the Harris Software as well as accept information provided by the Harris Software.
- 8. All third-party software and hardware products are assumed to perform correctly in the Customer environment, in accordance with the appropriate third-party vendor's specifications.
- 9. All documentation provided by Customer shall be up-to-date and accurate or if that is not the case, advise Harris as such.
- 10. All hardware, software, and network components supplied by Customer are working properly and are free of defects and will meet minimum hardware standards provided during the engagement.
- 11. To minimize project costs, the majority of project work will be performed at one of the Harris' locations except for project activities where face-to-face is deemed more effective.
- 12. Customer will provide the appropriate remote access to its network, facilities, and systems as may be required to perform activities from one of Harris' locations. Harris shall abide by all rules and directions of Customer when accessing Customer's network, facilities or systems. A Change Order may be created if appropriate remote access to its network is not available, resulting in project delays with prior written approval from the Customer.
- 13. The Engagement is expected to be completed within 8 months after the AMI project kick-off.
- 14. Any items not explicitly identified within this document are considered out of scope. Any changes to those responsibilities and/or deliverables will be considered a change in scope for the engagement. Any proposed change to the engagement scope must be put into written format and be submitted to Harris during this engagement for review and consideration and then mutually agreed upon by both parties.



8 Document Acceptance and Signoff

Accepted on this day by:

City of Lawrence	N.Harris Computer Corporation (Harris Utilities, SmartWorks)	
Ву:	By:Jagnin	
Name:	Veronique Gagnier Name:	
Title:	Title: Director, Professional Services	
Date:	Date:March 11, 2018	



APPENDIX A – Change Order Template

Harris Utilities SmartWorks Change Order

This document defines the work to be performed by the Harris Utilities, SmartWorks division of N.Harris Computer Corporation (Herein referred to as "Harris") for the City of Lawrence (Herein referred to as "Customer"), upon authorization to proceed from Customer.

Date:	<date></date>
Change Order #:	<xx></xx>
Customer:	<customer></customer>
Customer Contact:	<name contact="" of="" requester="" technical=""></name>
Description of Change:	<title change="" of="" order=""></th></tr></tbody></table></title>

Related Documents

- This Change Order is subject to the terms and conditions of Software License, Support and Maintenance Agreement between the City of Lawrence and N.Harris Computer Corp. signed <date signed>
- This Change Order describes a change from the scope or schedule defined in<Statement of Work (SOW) details>
- 3. (other related documents such as Technical Specification Documents)

Scope of Change

<Describe changes to be made>

Assumptions and Constraints

1. <List any applicable assumptions/constraints>

Schedule Impact

<Identify schedule impact, if any>



Change Order Effort

Description	Estimated Effort (Hours)
Work Description 1	0
Work Description 2	0
Project Total	0

Change Order Fees

Support and Maintenance

Monthly Support & Maintenance fees may be adjusted based on the increased functionality or complexity resulting from this scope of work.

<u>Taxes</u>

Fees exclude any applicable taxes.

<u>Validity</u>

Scope Changes

If there are material changes to the scope or our understanding of the scope, the price estimate is subject to change:

- The Standard hourly rate for additional services is USD \$220.
- The Support & Maintenance fees may be adjusted accordingly as well.



Change Order Payment Schedule

Customer will be invoiced based on the following payment fees and schedule. All prices are in USD.

Description	Payment	
(Milestone A TBD)	X%	\$0.00
(Milestone B TBD)	X%	\$0.00
Total	100%	\$0.00
Additional Annual Support & Maintenance fees		\$0.00
 Notes: This fee is intended to cover support and maintenance activities anticipated for new functionality provided in this quote. The fee will be applied upon installation in test environment (or production if a test environment is not available) The first year fee will be pro-rated to align with customer's existing maintenance payment schedule. Annual fees are subject to change as defined in the Support and Maintenance Agreement. 		

Invoices are payable on a net 30 day basis.



Change Order Acceptance and Signoff

A signature below will serve as authorization to proceed with the work defined in this document.

Please sign and return this document to Kim Sharkey:

- Nikhil Bhatia Project Manager
- Fax: 613-482-4874
- Email: NBhatia@harriscomputer.com

□ Approval to Proceed

Please provide both an authorized signature for sign off on this change order, and a technical contact where we should be directing Technical Issues.

Print Name (Authorized signature)	Signature	Date
Name (Technical Contact)	e-mail	Phone Number

N. Harris Computer Corporation

the Harris Utilities SmartWorks manager authorized to sign this change order

Print Name (Authorized signature)

Signature

Date

If you have any questions or need further information, please feel free to contact the Project Manager noted above.