

**6. For third party products proposed that are integrated with the Vendor's solution provide the following for each product:**

**a. Reason that this product is a third-party product versus being part of the software Vendor's solution,**

**b. Extent to which this third-party product is integrated with the Vendor's solution.**

Advanced's philosophy from our inception has been to provide "best of breed" customer information and billing systems for utilities and municipalities. By maintaining a focus on our core competency we are able to ensure we continue to provide comprehensive functionality relative to others who choose to offer a wide range of products. All our R&D funding is directed at achieving a best in class customer information and billing system. With this focus come employees who are highly knowledgeable in utility customer service processes and who bring industry best practice knowledge to each of our implementations.

## 4 Implementation Plan

The Vendor is to provide an implementation plan in narrative format supported by an activity-level project plan using Microsoft Project that details how the proposed solution is to be implemented. This implementation plan should include the following elements:

1. General Implementation Approach
2. Project Management Approach
3. Hardware, Software Installation Coordination
4. Data Conversion Plan
5. Report Development
6. Integrations and Interfaces
7. Training
8. Change Management Approach
9. Testing
10. Operational Redesign Approach
11. System Documentation and Manuals
12. Disaster Recovery Plan
13. Knowledge Transfer

The Vendor should not be constrained to only include the above items in the Vendor's proposal response if the Vendor feels that additional elements may add value to the overall implementation. The City of Columbia requests that the Vendor provide their work plan in a Microsoft Project format as part of the proposal response.

*It is expected that the Vendor will lead the efforts in each of the implementation areas described below unless stated otherwise.* Further details on what is to be provided as part of the Vendors proposed implementation plan are included in the following subsections.

As the City is contemplating a City-hosted versus Vendor-hosted solution, aspects of the proposed solution to be provided should be clearly delineated where they vary between these two approaches in the sections below.

### **Narrative Implementation Plan**

Our implementation process is designed to deliver the best solution within the most appropriate time-frame. Flexible enough for any deployment, the methodology ensures that Advanced thoroughly identifies and integrates the City's requirements based on your particular business objectives, required user experience and success criteria. As prime, Advanced will coordinate and manage partner resources to ensure a successful implementation of the proposed solution. The reference to "Advanced" below includes Advanced and partner implementation resources.

We closely monitor the scope of each of our projects with Project Managers reviewing their schedules and project plans on a daily basis. Our team is comprised of experts in developing clear and thorough Scopes of Work as well as in-depth project plans.

Our implementation approach consists of ten key phases:

- Project Initiation
- Discovery Analysis
- Specification and Interface/Modification Delivery
- Configuration and Conversion Training
- Core Team Training
- Software Testing
- Go/No Go Criteria
- End User Training
- Transition to Live
- Post Go Live

Our staff will work both on-site and through remote access to the City's system. Staff is onsite at key points in the implementation based on a schedule approved by the client, usually for 4-5 days at a time. During those visits, our staff would work closely with the staff at the City to perform activities specific to completion of milestones identified in the project schedule.

Please note that we are proposing to implement CIS Infinity as a Client-hosted solution for the City.

#### **Phase 1 – Project Initiation**

##### *Contract Management*

Advanced will assign a Project Manager for the management of the Scope of Work for the implementation of CIS Infinity and our partner solutions. The Project Manager will meet with the City's Project Manager and staff to discuss the Scope of Work and define the steps to be taken to perform the work. Project objectives will be discussed and agreed upon. The City's Project Manager will approve all deliverables and associated invoices for the implementation as well as providing oversight and guidance so completion of the task order meets goals and budgets.

##### *Project Planning*

The Advanced Project Manager will be onsite for a kick-off meeting to introduce their implementation team and organize and present all information required to start the project.

The Advanced Project Manager will address the following areas:

- Project Plan creation and acceptance.
- Software Installation, Installation Training and Installation Report.
- Course Syllabus for Core Team, Technical Team, and End User Training (part of the Training Plan).
- Identify the Project Team Contact List

Several project planning documents are developed as a part of this effort, including: as mentioned, the Project Plan as well as the Risk Plan, Conversion Plan, Test Plan, Training Plan, Communication Plan, and Change Order Plan. The Project Plan includes a definition of project requirements; an implementation strategy; and the project schedule - including milestones, internal deliverable dates that may affect milestones (integration and third party deliverables for example), and schedule dependencies.

#### *Installation*

While Advanced is responsible for the complete and correct installation of the proposed solution, Advanced also ensures that the City's technical team is proficient at installing the system. Advanced trains the City's technical team on all aspects of the installation, including installing CIS Infinity on the server, loading data, and installing the CIS Infinity client on individual workstations.

Advanced experts will review the software operating requirements, hardware configuration and requirements, processing speed and capacity to ensure an effective connection between the server hardware platform and client desktop components.

#### *Phase 1 Deliverables*

- Project Plan and schedule
- Risk Plan
- Conversion Plan
- Test Plan
- Training Plan
- Communication Plan
- Change Management Plan.
- Software Installation
- Installation Training
- Installation Report
- Issue Tracking Training
- Entity Relationship Diagram

#### *Phase 1 Requirements*

- Scope of Work
- Project Team Contact list
- Project Requirements
- Success Criteria
- Access to system experts and data specialists.
- Access to process experts
- Information on the City's work processes

- Availability of technical team
- Exclusive access to servers during installation.

### **Phase 2 – Discovery Analysis/Product Walkthroughs**

The purpose of the Discovery Analysis Phase is to gather detailed business rules and operational information from the City and to provide a starting point for system configuration of the software. This analysis will provide an association between the City's business practices and how the software is configured. The intent in implementing the proposed solution is to take a best practices approach, and use the system as it is designed.

The Discovery Analysis Phase also covers the analysis and specification definition for interfaces and modifications.

The workshops will look at the functional, technical, and data conversion areas of the system and set the basis for how Advanced will configure, modify, integrate and convert all of the required business functions, business logic and data conversion activities in the system.

Discovery Analysis will be led, onsite, by Advanced and broken out into functional and technical workshops.

Advanced will create a Discovery Document that will detail all key functional areas of the system.

#### *Data Conversion Discovery Plan*

Advanced will work with the City to determine how to convert the existing legacy data. A full explanation of the process and definition of standard data validation parameters, as well as any site specific data validation parameters will be reviewed and adopted. Data validation criteria, as well as a data map, is presented and reviewed jointly by Advanced and the City. The Data Conversion Discovery Plan will include the data mapping document and data validation parameters. These will be used to ensure data validation metrics are in place.

#### *Modifications and Interfaces Strategy Document*

Advanced will work with the City to review all of the required interfaces and modifications to be programmed or configured. Advanced will review the specification process and map out the timeline required to complete the specifications process, code, Q/A, deploy, and test all of these required interfaces and modifications.

#### *Phase 2 Deliverables*

- Functional Discovery Analysis Workshop Agendas
- Technical Discovery Analysis Workshop Agendas
- Data Conversion Discovery Plan
- Modifications and Interfaces Strategy Document
- Discovery Document.

### **Phase 3 - Specification and Interface/Modification Delivery**

After the approval of the Interface and Modification Strategy Document, Advanced will build upon the functional and technical workshops and produce a Functional Specification Document and Technical Specification Document for review and acceptance by the City.

Each specification will outline the following:

- Document Overview
- Revision History
- Functional/Technical Summary (as appropriate)
- Process Overview
- Functional/Technical Enhancement (as appropriate)
- Impact to System Operation
- Questions

After specifications are approved, the Advanced development team will code, test, and deliver the interfaces and modifications.

#### *Phase 3 Deliverables*

- Functional Specification Document
- Technical Specification Document

### **Phase 4 - Configuration and Conversion**

Advanced will configure the software to reflect the City's business processes. The information gathered from the Discovery workshops will assist with initial efforts. Once installed and throughout the implementation, your Advanced Technical Team will make modifications to the initial configuration based on testing results.

As your system administrator becomes more familiar with the product, which is accomplished throughout the implementation phase, they will be better positioned in the post live to modify configuration as required.

The City will provide a data extract to Advanced that will be loaded into the database at the offsite Advanced development environment. Advanced will convert the City's data and will develop a conversion routine to reflect the requirements of the City.

The Advanced Conversion Specialist will prepare the data conversion to load onsite and deliver a completed Initial Data Conversion Load with all of the data validation parameters.

Advanced will install the Initial Data Conversion Load at the City and conduct a series of onsite rollouts, as required, to ensure the data conversion and configuration is correct. Advanced will produce Conversion and Configuration Functional Test Scripts for confirming the look and feel of the data. Conversion and Configuration System Test Scripts will be provided to ensure system functions such as manual meter reading, billing and cash are operating properly. The City will provide results (pass/fail) from testing. Any deficiencies found during this rollout process will be documented by the City and provided

to Advanced. Advanced is responsible for fully testing and correcting any deficiencies found during each rollout.

The final build released during the Configuration and Conversion Phase will be the baseline for system testing. Advanced will maintain baseline control and data validation for all build releases. This includes any development work the City refactors due to testing.

The deliverables for each Mock Go-Live are the same: a Percent Complete Report for the converted legacy data, an updated Audit plan for verification of converted data, and an updated Conversion Cutover Plan with a set of timing benchmarks.

*Phase 4 Deliverables*

- Configuration Checklist
- Initial Data Conversion Load
- Conversion and Configuration Functional Test Scripts
- Conversion and Configuration System Test Scripts
- Data Validation Parameters
- Mock Go-Lives

**Phase 5 - Core Team Training**

The City's core functional and core technical teams will be trained by Advanced to use the software prior to starting system testing. Core Team Training consists of an introduction to all of the functionality that applies to the City's business processes.

During training, the City and Advanced will also document any process gaps, system bugs, set up, conversion and process flow deficiencies. These items are then assigned to and resolved by the Advanced implementation team.

*Phase 5 Deliverables*

- Core Team Training Plan.
- Deliver Core Team/System Administration Training classes
- Deliver Technical Training classes.

*Phase 5 Requirements*

- City's Core Team participation in development of End User Training materials, if applicable.

**Phase 6 - Software Testing**

There will be three phases in the overall testing approach: Functional Testing, Integrated Testing Cycle (ITC) and User Acceptance Testing (UAT). There will be test scripts written for each of these phases. Test script creation will be led by Advanced but script validation will be completed by the City's staff to ensure that the test scripts are testing for their needs. The test scripts will be driven by the business process flows that are documented during the Discovery process.

### ***1. Functional Testing***

Functional testing will utilize testing scripts to confirm that the data conversion and basic functions in the system are working as expected.

### ***2. Integrated Testing Cycle (ITC)***

ITC will utilize generic testing scripts and system scenarios to confirm that the data conversion and system processes are functioning as expected. ITC is broken down into two sub phases.

- ITC 1 is intended to exercise full scale testing of the system.
- ITC2 emulates the same process with a refreshed data conversion set and any configuration changes that have been made to the system.

### ***3. User Acceptance Testing (UAT)***

The final testing is UAT and starts with a code freeze. Only critical path item changes will be altered during this phase as agreed upon by both parties after analyzing the risk of introducing these changes. Once complete, the UAT constitutes acceptance of the system to be ready for Go Live. In combination with staff training readiness and organization readiness, the UAT and its acceptance help to drive the Go/No Go criteria that lock down the live date of the software.

#### ***Phase 6 Deliverables***

- Functional, Integration, and User Acceptance Test Scripts.
- On site assistance with all phases of testing.
- Modified Configuration based on test results
- Modified Conversion based on test results.

#### ***Phase 6 Requirements***

- The City's Core Team participation in all test phases
- The City reporting of any issues during the test phases.

### ***Phase 7 - Go/No Go Criteria***

Advanced will initiate a process of gauging system readiness that will be measured using jointly defined Go/No Go Criteria by Advanced and the City to determine if the software is ready for use in a production environment. The criteria will be agreed to by the City's Steering Committee and Advanced will document this in the Go/No Go Criteria List.

A contingency plan will be developed and reviewed with the City.

#### ***Phase 7 Deliverables***

- Go/No Go Criteria List
- Final Release Data Conversion Load
- Contingency Plan



### **Phase 8 – End User Training**

Once the Core Team is trained and the functional and integration testing is complete, the End User training will begin. End users are trained according to their job requirements.

Learners are instructed in small groups (usually a maximum of eight learners) using a step by step procedural approach. By practicing their day to day tasks using the City's own data, users become comfortable with the system before they are expected to use it in a production environment.

#### *Phase Five Deliverables*

- End User Training Plan
- Deliver Train the Trainer Training classes
- Deliver Technical Training classes.

### **Phase 9 - Transition to Live**

The Advanced Project Manager will develop a Cutover Plan that details the steps and responsibilities for Advanced and the City to transition to the City's production (live) environment.

The transition to live will have a new data conversion in which the data validation parameters will all be approved by the City's and the Advanced Project Manager.

#### *Phase 9 Deliverable*

- Cutover Plan

#### *Phase 9 Requirements*

- Provide detailed steps and communications of when data extract is obtained and data conversion is returned.
- Provide ordered steps for ensuring balancing of the system.
- Delineate whether a test system is refreshed at the same time as production for any required process testing.
- Execute post cutover test plan and checklist.
- Indicate when the system will be turned over to end user staff.
- Have a communication plan embedded into it.
- Will hold updating functions with Advanced staff until system processing is in balance.
- Provide a formal release that the system has been handed to the City in full balance.
- Will release updating capability to the City.

#### **Phase 10 - Post Go Live**

Advanced will assist the City throughout the post live implementation phase to identify and respond to any needs and concerns. During the Post Go Live period, Advanced will supply a combination of onsite, remote, and WebEx online support to ensure a smooth transition to support.

#### ***Phase 10 Requirements***

- Weekly PM and technical staff meetings to review all high priority items.
- Combination of onsite and remote customer support.
- Scheduling of delivery of remaining service.
- Full transition to support Audit (internal to Advanced).
- Joint formal sign-off on system Acceptance Criteria developed between Advanced and the City
- Introduction and transition to Support.

#### **Microsoft Project Plan**



This plan includes key phases, activities, tasks, milestones and deliverables. The proposed timeline is based on our experience with organizations that are of similar size and scope to the City.

Dates are for illustrative purposes only. Advanced would work with the City to create a mutually agreed upon timeframe and finalize a project plan.

ID	Task Name	Trips	Work	Duration	Start	Finish	Predecessor	Resource Names
1	<b>City of Columbia</b>	<b>65</b>	<b>5,280 hrs</b>	<b>270.91 days</b>	<b>Mon 6/3/13</b>	<b>Wed 7/9/14</b>		
2	<b>Project Pre-Planning</b>	<b>0</b>	<b>147 hrs</b>	<b>11.77 days</b>	<b>Mon 6/3/13</b>	<b>Tue 6/18/13</b>		
3	Confirm Hardware Delivery	0	0 hrs	1 day	Mon 6/3/13	Mon 6/3/13		
4	Develop Draft Project Schedule	0	95 hrs	10 days	Tue 6/4/13	Mon 6/17/13	3	Project Manager, Applic
5	Develop Draft Risk Plan	0	2 hrs	0.25 days	Tue 6/18/13	Tue 6/18/13	4	Project Manager
6	Develop Draft Communication Plan	0	2 hrs	0.25 days	Tue 6/18/13	Tue 6/18/13	5	Project Manager
7	Develop Draft Change Management Plan	0	2 hrs	0.25 days	Tue 6/18/13	Tue 6/18/13	6	Project Manager
8	Develop Initial Resource Schedule	0	22 hrs	2.75 days	Thu 6/13/13	Mon 6/17/13	4FF	Project Manager
9	Internal Project Team Kick-off	0	24 hrs	0.77 days	Tue 6/18/13	Tue 6/18/13	8	Application Consultant,
10	<b>Project Scheduling (On Site)</b>	<b>2</b>	<b>76 hrs</b>	<b>3.13 days</b>	<b>Tue 7/2/13</b>	<b>Mon 7/8/13</b>	<b>2FS+9 days</b>	
11	Project Kick-off at City of Columbia	0	0 hrs	0 days	Tue 7/2/13	Tue 7/2/13		
12	Develop Project Schedule	2	50 hrs	3.13 days	Tue 7/2/13	Mon 7/8/13	11	Project Manager, Applic
13	ADV - Deliver CIS Product Overview (remote)	0	4 hrs	0.5 days	Fri 7/5/13	Mon 7/8/13	11SS+2 day	Trainer
14	Develop Draft Risk Plan	0	4 hrs	0.5 days	Mon 7/8/13	Mon 7/8/13	12FF	Project Manager
15	Develop Draft Communication Plan	0	4 hrs	0.5 days	Mon 7/8/13	Mon 7/8/13	12FF	Project Manager
16	Develop Draft Change Management Plan	0	4 hrs	0.5 days	Mon 7/8/13	Mon 7/8/13	12FF	Project Manager
17	Develop Initial Resource Schedule	0	4 hrs	0.5 days	Mon 7/8/13	Mon 7/8/13	12FF	Project Manager
18	ADV - Deliver Training Workbooks	0	1 hr	0.13 days	Mon 7/8/13	Mon 7/8/13	12FF	Project Manager
19	ADV - Deliver Data Validation Workbook	0	1 hr	0.13 days	Mon 7/8/13	Mon 7/8/13	12FF	Project Manager
20	ADV - Deliver and review Training Matrix	0	2 hrs	0.25 days	Mon 7/8/13	Mon 7/8/13	12FF	Project Manager
21	Develop Draft Training Schedule	0	2 hrs	0.25 days	Mon 7/8/13	Mon 7/8/13	20FF	Project Manager
22	City of Columbia - Start documenting test cases for all testing	0	0 hrs	1 day	Fri 7/5/13	Mon 7/8/13	21FF	
23	<b>Installation of CIS Infinity</b>	<b>0</b>	<b>32 hrs</b>	<b>8 days</b>	<b>Wed 7/3/13</b>	<b>Tue 7/16/13</b>	<b>2</b>	
24	ADV - Install/Config Database Server	0	8 hrs	1 day	Wed 7/3/13	Fri 7/5/13	11SS+1 day	Installer DB
25	ADV - Install/Config Application Server	0	8 hrs	1 day	Fri 7/5/13	Mon 7/8/13	24	Installer APP

ID	Task Name	Trips	Work	Duration	Start	Finish	Predecessor	Resource Names
26	ADV - Install Desktop Application (1-2 machines)	0	8 hrs	1 day	Fri 7/5/13	Mon 7/8/13	25FF	Installer APP
27	ADV - Train City of Columbia IT on Installation of Desktops	0	8 hrs	1 day	Mon 7/8/13	Tue 7/9/13	26	Installer APP
28	City of Columbia - Sign-off on Installation	0	0 hrs	0 days	Tue 7/9/13	Tue 7/9/13	27	
29	City of Columbia - Complete Installation of Desktops	0	0 hrs	5 days	Tue 7/9/13	Tue 7/16/13	27	
30	<b>Discovery</b>	<b>9</b>	<b>500 hrs</b>	<b>82.7 days</b>	<b>Tue 7/16/13</b>	<b>Thu 11/14/13</b>	<b>23</b>	
31	ADV - Deliver Discovery Agenda	0	2 hrs	0.25 days	Tue 7/16/13	Wed 7/17/13	10FF	Application Consultant
32	<b>Discovery Workshop Week 1 (Onsite)</b>	<b>3</b>	<b>120 hrs</b>	<b>3 days</b>	<b>Tue 8/6/13</b>	<b>Fri 8/9/13</b>	<b>101FS+5 d</b>	
33	Foundation Workshop	3	24 hrs	1 day	Tue 8/6/13	Wed 8/7/13		Application Consultant,
34	Customer Service Workshop	0	24 hrs	1 day	Wed 8/7/13	Thu 8/8/13	33	Application Consultant,
35	Move In - Move Out Workshop	0	24 hrs	1 day	Thu 8/8/13	Fri 8/9/13	34	Application Consultant,
36	Legacy Cashiering and Inquiry Workshop	0	24 hrs	1 day	Thu 8/8/13	Fri 8/9/13	35FF	Application Consultant,
37	General review	0	24 hrs	1 day	Thu 8/8/13	Fri 8/9/13	36FF	Application Consultant,
38	<b>Discovery Workshop Week 2 (Onsite)</b>	<b>3</b>	<b>120 hrs</b>	<b>4 days</b>	<b>Mon 8/12/13</b>	<b>Fri 8/16/13</b>	<b>32FS+1 day</b>	
39	Billing Process Workshop	3	24 hrs	1 day	Mon 8/12/13	Tue 8/13/13		Application Consultant,
40	Rates Workshop	0	24 hrs	1 day	Tue 8/13/13	Wed 8/14/13	39	Application Consultant,
41	Financial Mgmt Workshop	0	24 hrs	1 day	Wed 8/14/13	Thu 8/15/13	40	Application Consultant,
42	Meters and Assets Workshop	0	24 hrs	1 day	Thu 8/15/13	Fri 8/16/13	41	Application Consultant,
43	General review	0	24 hrs	1 day	Thu 8/15/13	Fri 8/16/13	42FF	Application Consultant,
44	<b>Discovery Workshop Week 3 (Onsite)</b>	<b>3</b>	<b>120 hrs</b>	<b>4 days</b>	<b>Mon 8/26/13</b>	<b>Fri 8/30/13</b>	<b>38FS+6 day</b>	
45	Service Orders Workshop	3	24 hrs	1 day	Mon 8/26/13	Tue 8/27/13		Application Consultant,
46	Collections Workshop	0	24 hrs	1 day	Tue 8/27/13	Wed 8/28/13	45	Application Consultant,
47	Reports, Notices and Letters Workshop	0	24 hrs	1 day	Tue 8/27/13	Wed 8/28/13	46FF	Application Consultant,
48	General review	0	48 hrs	2 days	Wed 8/28/13	Fri 8/30/13	47	Application Consultant,

Project: Pro Forma Project Plan  
Date: Tue 12/18/12

Task		External Milestone		Manual Summary Rollup	
Split		Inactive Task		Manual Summary	
Milestone		Inactive Milestone		Start-only	
Summary		Inactive Summary		Finish-only	
Project Summary		Manual Task		Deadline	
External Tasks		Duration-only		Progress	

ID	Task Name	Trips	Work	Duration	Start	Finish	Predecessor	Resource Names
49	<b>Discovery Workshop finalization</b>	0	138 hrs	36.37 days	Mon 9/23/13	Thu 11/14/13	75	
50	ADV - Update Discovery Document	0	86 hrs	6.45 days	Mon 9/23/13	Tue 10/1/13		Application Consultant
51	ADV - Delivery Discovery Document	0	36 hrs	4.5 days	Tue 10/1/13	Tue 10/8/13	50	Project Manager
52	City of Columbia - Review Discovery Document	0	0 hrs	5 days	Tue 10/8/13	Wed 10/16/13	51	
53	City of Columbia - Provide Comments	0	0 hrs	3.75 days	Wed 10/16/13	Mon 10/21/13	52	
54	ADV - Update Discovery Document	0	16 hrs	6.67 days	Mon 10/21/13	Wed 10/30/13	53	Application Consultant
55	City of Columbia - Sign-Off on Discovery Document	0	0 hrs	10 days	Wed 10/30/13	Thu 11/14/13	54	
56	<b>Conversion (Data Discovery and Mapping Exercise)</b>	1	128 hrs	56.38 days	Mon 7/8/13	Fri 9/27/13		
57	City of Columbia - Deliver initial Extract	0	0 hrs	5 days	Mon 7/8/13	Mon 7/15/13	12	
58	City of Columbia - Deliver Data Dictionary	0	0 hrs	5 days	Mon 7/8/13	Mon 7/15/13	57FF	
59	ADV - Legacy Data Assessment	0	8 hrs	5 days	Mon 7/15/13	Mon 7/22/13	58	Conversion[20%]
60	ADV - Setup Conversion Environment	0	8 hrs	10 days	Mon 7/22/13	Tue 8/6/13	59	Conversion[10%]
61	ADV - Develop MS Access DB for Data Mapping Exercise	0	4 hrs	1.67 days	Tue 8/6/13	Thu 8/8/13	60	Conversion[30%]
62	ADV - Data Mapping Exercise (Onsite) week 1	1	40 hrs	5 days	Fri 8/30/13	Mon 9/9/13	44	Conversion
63	ADV - Data Mapping Exercise (remote) week 2	0	40 hrs	5 days	Mon 9/9/13	Mon 9/16/13	62	Conversion
64	ADV - Data Mapping Exercise (remote)	0	16 hrs	2 days	Mon 9/16/13	Wed 9/18/13	63	Conversion
65	ADV - Legacy Data Clean-up List (if applicable)	0	4 hrs	0.5 days	Wed 9/18/13	Thu 9/19/13	64	Conversion
66	ADV - Develop Potential List of Baseline Accounts	0	4 hrs	0.5 days	Thu 9/19/13	Thu 9/19/13	65	Conversion
67	ADV - Update Data Mapping DB	0	4 hrs	0.5 days	Thu 9/19/13	Fri 9/20/13	66	Conversion
68	ADV - Deliver Data Mapping DB	0	0 hrs	0 days	Fri 9/20/13	Fri 9/20/13	67	
69	City of Columbia - Signoff on Data Mapping DB	0	0 hrs	5 days	Fri 9/20/13	Fri 9/27/13	68	

Project: Pro Forma Project Plan Date: Tue 12/18/12	Task		External Milestone		Manual Summary Rollup	
	Split		Inactive Task		Manual Summary	
	Milestone		Inactive Milestone		Start-only	
	Summary		Inactive Summary		Finish-only	
	Project Summary		Manual Task		Deadline	
	External Tasks		Duration-only		Progress	





ID	Task Name	Trips	Work	Duration	Start	Finish	Predecessor	Resource Names
94	ADV - Configure Interfaces	0	95 hrs	11.88 days	Fri 8/30/13	Wed 9/18/13	93,44	Tech Lead
95	City of Columbia - Test Interfaces	0	0 hrs	20 days	Wed 9/18/13	Thu 10/17/13	94	
96	ADV - Make adjustments to Interfaces	0	0 hrs	6.25 days	Thu 10/17/13	Fri 10/25/13	95	
97	City of Columbia - Re-Test Interfaces	0	0 hrs	12.5 days	Fri 10/25/13	Thu 11/14/13	96	
98	City of Columbia - Signoff on Interfaces	0	0 hrs	1 day	Thu 11/14/13	Fri 11/15/13	97	
99	<b>Core Team Training</b>	<b>5</b>	<b>200 hrs</b>	<b>64.33 days</b>	<b>Mon 7/22/13</b>	<b>Thu 10/24/13</b>		
100	<b>Week 1</b>	<b>1</b>	<b>40 hrs</b>	<b>5 days</b>	<b>Mon 7/22/13</b>	<b>Mon 7/29/13</b>	28FS+9 day	
101	ADV - Orientation & Overview and Daily Process	1	40 hrs	5 days	Mon 7/22/13	Mon 7/29/13		Trainer
102	<b>Week 2</b>	<b>1</b>	<b>40 hrs</b>	<b>3.75 days</b>	<b>Mon 9/23/13</b>	<b>Thu 9/26/13</b>	80FS+1 day	
103	ADV - Billing	1	30 hrs	3.75 days	Mon 9/23/13	Thu 9/26/13		Trainer
104	ADV - Cash	0	10 hrs	1.25 days	Wed 9/25/13	Thu 9/26/13	103FF	Trainer
105	<b>Week 3</b>	<b>1</b>	<b>40 hrs</b>	<b>3.13 days</b>	<b>Mon 9/30/13</b>	<b>Thu 10/3/13</b>	102FS+2 d	
106	ADV - Collections	1	20 hrs	2.5 days	Mon 9/30/13	Thu 10/3/13		Trainer
107	ADV - Designing SO	0	5 hrs	0.63 days	Thu 10/3/13	Thu 10/3/13	106	Trainer
108	ADV - Generating Service Orders	0	5 hrs	0.63 days	Thu 10/3/13	Thu 10/3/13	107FF	Trainer
109	ADV - Reports	0	10 hrs	1.25 days	Wed 10/2/13	Thu 10/3/13	108FF	Trainer
110	<b>Week 4</b>	<b>1</b>	<b>40 hrs</b>	<b>2.63 days</b>	<b>Tue 10/15/13</b>	<b>Fri 10/18/13</b>	105FS+7 d	
111	ADV - GL and Month/Year End	1	5 hrs	0.63 days	Tue 10/15/13	Wed 10/16/13		Trainer
112	ADV - Security	0	5 hrs	0.63 days	Tue 10/15/13	Wed 10/16/13	111FF	Trainer
113	ADV - Scheduler	0	5 hrs	0.63 days	Tue 10/15/13	Wed 10/16/13	112FF	Trainer
114	ADV - System Administration	0	15 hrs	1 day	Wed 10/16/13	Thu 10/17/13	113	Trainer
115	ADV - Rate Management	0	10 hrs	1 day	Thu 10/17/13	Fri 10/18/13	114	Trainer
116	<b>Week 5</b>	<b>1</b>	<b>40 hrs</b>	<b>2.5 days</b>	<b>Mon 10/21/13</b>	<b>Thu 10/24/13</b>	110FS+1 d	
117	ADV - Water Inventory	1	10 hrs	1.25 days	Mon 10/21/13	Tue 10/22/13		Trainer
118	ADV - Electric Inventory	0	10 hrs	1.25 days	Tue 10/22/13	Thu 10/24/13	117	Trainer

Project: Pro Forma Project Plan Date: Tue 12/18/12	Task		External Milestone		Manual Summary Rollup	
	Split		Inactive Task		Manual Summary	
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ID	Task Name	Trips	Work	Duration	Start	Finish	Predecessor	Resource Names
119	ADV - Instrument & Distribution Transformers	0	10 hrs	1.25 days	Tue 10/22/13	Thu 10/24/13	118FF	Trainer
120	ADV - Back Flow	0	10 hrs	1.25 days	Tue 10/22/13	Thu 10/24/13	119FF	Trainer
121	<b>Reports, Notices, Receipts and Bill Print</b>	2	320 hrs	152.64 days	Mon 6/3/13	Wed 1/15/14		
122	<b>Reporting</b>	2	190 hrs	52.33 days	Thu 10/24/13	Mon 1/13/14		
123	ADV - Review of current reporting obligations (Onsite)	2	32 hrs	4 days	Thu 10/24/13	Wed 10/30/13	47,116	Crystal Reports
124	ADV - Analyze City of Columbia Reports	0	12 hrs	1.5 days	Wed 10/30/13	Thu 10/31/13	123	Crystal Reports
125	ADV - Provide Mock-up of Custom Reports	0	16 hrs	2 days	Thu 10/31/13	Mon 11/4/13	124	Crystal Reports
126	City of Columbia - Signoff on Mock-ups	0	0 hrs	6.25 days	Mon 11/4/13	Wed 11/13/13	125	
127	ADV - Program Custom Reports	0	122 hrs	18.83 days	Wed 11/13/13	Wed 12/11/13	126	Crystal Reports[81%]
128	City of Columbia - Test Custom Reports	0	0 hrs	12.5 days	Wed 12/11/13	Thu 1/2/14	127	
129	ADV - Make any adjustments	0	8 hrs	1 day	Thu 1/2/14	Fri 1/3/14	128	Crystal Reports
130	City of Columbia - Re-test Custom Reports	0	0 hrs	6.25 days	Fri 1/3/14	Mon 1/13/14	129	
131	City of Columbia - Signoff on Custom Reports	0	0 hrs	0 days	Mon 1/13/14	Mon 1/13/14	130	
132	<b>Bill Print Design</b>	0	100 hrs	128.75 days	Mon 7/8/13	Wed 1/15/14		
133	ADV - Provide Sample Bills	0	1 hr	1.25 days	Mon 7/8/13	Wed 7/10/13	10	Project Manager[10%]
134	City of Columbia - Provide Bill Print Mock-Up	0	0 hrs	90 days	Wed 7/10/13	Tue 11/19/13	133	
135	ADV - Review Bill Print Mock-up	0	20 hrs	2.5 days	Tue 11/19/13	Thu 11/21/13	134	Crystal Reports
136	ADV - Code and test Bill Print	0	60 hrs	15 days	Thu 11/21/13	Fri 12/13/13	135	Crystal Reports[50%]
137	ADV - Rollout Bill Print	0	1 hr	1.25 days	Fri 12/13/13	Mon 12/16/13	136	Crystal Reports[10%]
138	City of Columbia - Test Bill Print (1500+ Bills)	0	0 hrs	18.75 days	Mon 12/16/13	Wed 1/15/14	137,233SS	
139	ADV - Make any necessary code changes	0	18 hrs	67.5 days	Fri 10/4/13	Wed 1/15/14	138FF	Crystal Reports[3%]
140	City of Columbia - Signoff on Bill Print	0	0 hrs	0 days	Wed 1/15/14	Wed 1/15/14	139	
141	<b>Notices</b>	0	15 hrs	27.5 days	Mon 6/3/13	Fri 7/12/13		
142	City of Columbia - Design New Notices	0	0 hrs	12.5 days	Mon 6/3/13	Wed 6/19/13		

Project: Pro Forma Project Plan  
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Task		External Milestone		Manual Summary Rollup	
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Project Summary		Manual Task		Deadline	
External Tasks		Duration-only		Progress	



ID	Task Name	Trips	Work	Duration	Start	Finish	Predecessor	Resource Names
143	City of Columbia - Deliver Notices Design to ADV	0	0 hrs	0 days	Wed 6/19/13	Wed 6/19/13	142	
144	ADV - Program Notices	0	10 hrs	7.5 days	Wed 6/19/13	Fri 6/28/13	143	Crystal Reports[17%]
145	ADV - Rollout Notices Onsite	0	1 hr	1.25 days	Tue 7/2/13	Wed 7/3/13	144	Crystal Reports[10%]
146	City of Columbia - Test Notices	0	0 hrs	6.25 days	Wed 7/3/13	Fri 7/12/13	145	
147	ADV - Make any necessary code changes	0	4 hrs	12.5 days	Mon 6/24/13	Fri 7/12/13	146FF	Crystal Reports[4%]
148	City of Columbia - Signoff on Notices	0	0 hrs	0 days	Fri 7/12/13	Fri 7/12/13	147	
149	<b>Receipts</b>	<b>0</b>	<b>15 hrs</b>	<b>6.25 days</b>	<b>Mon 6/3/13</b>	<b>Tue 6/11/13</b>		
150	City of Columbia - Design New Receipts	0	0 hrs	1.25 days	Mon 6/3/13	Tue 6/4/13		
151	City of Columbia - Deliver Receipt Design to ADV	0	0 hrs	0 days	Tue 6/4/13	Tue 6/4/13	150	
152	ADV - Program Receipt	0	10 hrs	2.5 days	Tue 6/4/13	Thu 6/6/13	151	Crystal Reports[50%]
153	ADV - Rollout Receipt Onsite	0	1 hr	1.25 days	Thu 6/6/13	Fri 6/7/13	152	Crystal Reports[10%]
154	City of Columbia - Test Receipt	0	0 hrs	1.25 days	Mon 6/10/13	Tue 6/11/13	153	
155	ADV - Make any necessary code changes	0	4 hrs	5 days	Tue 6/4/13	Tue 6/11/13	154FF	Crystal Reports[10%]
156	City of Columbia - Signoff on Receipt	0	0 hrs	0 days	Tue 6/11/13	Tue 6/11/13	155	
157	<b>Data Refreshes</b>	<b>1</b>	<b>472 hrs</b>	<b>190.41 days</b>	<b>Wed 9/18/13</b>	<b>Fri 6/27/14</b>		
158	<b>Data Refresh # 1 (Conversion)</b>	<b>0</b>	<b>122 hrs</b>	<b>29.47 days</b>	<b>Wed 9/18/13</b>	<b>Thu 10/31/13</b>		
159	ADV - Programming of the Conversion	0	88 hrs	16.5 days	Wed 9/18/13	Fri 10/11/13	64	Conversion[67%]
160	ADV - Run Initial Conversion	0	12 hrs	2.4 days	Fri 10/11/13	Wed 10/16/13	159	Conversion[63%]
161	ADV - Load Converted Data to In-house Systems	0	4 hrs	2.5 days	Wed 10/16/13	Mon 10/21/13	160	Conversion[20%]
162	ADV - Run Data Integrity Report	0	4 hrs	1.67 days	Mon 10/21/13	Tue 10/22/13	161	Conversion[30%]
163	ADV - Q/A Analysis of Converted Data	0	10 hrs	1.39 days	Thu 10/24/13	Fri 10/25/13	162,116	Conversion[10%],Tech
164	ADV - Upload Data to FTP site	0	1 hr	1.25 days	Fri 10/25/13	Mon 10/28/13	163	Conversion[10%]

Project: Pro Forma Project Plan Date: Tue 12/18/12	Task		External Milestone		Manual Summary Rollup	
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ID	Task Name	Trips	Work	Duration	Start	Finish	Predecessor	Resource Names
165	ADV - Load Converted Data to Onsite Production System	0	2 hrs	2.5 days	Mon 10/28/13	Thu 10/31/13	164	Conversion[10%]
166	ADV - Load Converted Data to Onsite Test System	0	1 hr	1.25 days	Tue 10/29/13	Thu 10/31/13	165FF	Conversion[10%]
167	<b>Data Refresh #2 (Functional Testing)</b>	0	50 hrs	6.34 days	Tue 12/3/13	Thu 12/12/13	233	
168	City of Columbia - Deliver Data Extract	0	0 hrs	1 day	Tue 12/3/13	Wed 12/4/13		
169	City of Columbia - Deliver Data Validation Numbers	0	0 hrs	1 day	Tue 12/3/13	Wed 12/4/13	168FF	
170	ADV - Run Initial Conversion	0	12 hrs	1.8 days	Wed 12/4/13	Fri 12/6/13	169	Conversion[83%]
171	ADV - Load Converted Data to In-house Systems	0	1 hr	0.63 days	Fri 12/6/13	Mon 12/9/13	170	Conversion[20%]
172	ADV - Run Data Integrity Report	0	1 hr	0.63 days	Fri 12/6/13	Mon 12/9/13	171FF	Conversion[20%]
173	ADV - Q/A Analysis of Converted Data	0	12 hrs	1.67 days	Mon 12/9/13	Wed 12/11/13	172	Conversion[10%],Tech
174	ADV - Upload Data to FTP site	0	4 hrs	0.63 days	Tue 12/10/13	Wed 12/11/13	173FF	Conversion[80%]
175	ADV - Load Converted Data to Onsite Production System	0	4 hrs	0.63 days	Wed 12/11/13	Wed 12/11/13	174	Conversion[80%]
176	ADV - Load Converted Data to Onsite Test System	0	4 hrs	0.63 days	Wed 12/11/13	Wed 12/11/13	175FF	Conversion[80%]
177	ADV - Provide Data Validation Worksheet	0	4 hrs	0.63 days	Wed 12/11/13	Wed 12/11/13	175FF	Conversion[80%]
178	ADV - Reconcile any differences	0	4 hrs	0.63 days	Wed 12/11/13	Thu 12/12/13	177	Conversion[80%]
179	ADV - Make any necessary code changes	0	4 hrs	0.5 days	Wed 12/11/13	Thu 12/12/13	178FF	Conversion
180	<b>Data Refresh #3 (Integration Testing Cycle 1)</b>	0	75 hrs	10.72 days	Thu 1/2/14	Fri 1/17/14	240	
181	City of Columbia - Deliver Data Extract	0	0 hrs	1 day	Thu 1/2/14	Fri 1/3/14		
182	City of Columbia - Deliver Data Validation Numbers	0	0 hrs	1 day	Thu 1/2/14	Fri 1/3/14	181FF	
183	ADV - Run Initial Conversion	0	37 hrs	5.55 days	Fri 1/3/14	Mon 1/13/14	182	Conversion[83%]

Project: Pro Forma Project Plan Date: Tue 12/18/12	Task		External Milestone		Manual Summary Rollup	
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	Project Summary		Manual Task		Deadline	
	External Tasks		Duration-only		Progress	

ID	Task Name	Trips	Work	Duration	Start	Finish	Predecessor	Resource Names
184	ADV - Load Converted Data to In-house Systems	0	1 hr	0.63 days	Mon 1/13/14	Mon 1/13/14	183	Conversion[20%]
185	ADV - Run Data Integrity Report	0	1 hr	0.63 days	Mon 1/13/14	Mon 1/13/14	184FF	Conversion[20%]
186	ADV - Q/A Analysis of Converted Data	0	12 hrs	1.67 days	Mon 1/13/14	Wed 1/15/14	185	Conversion[10%], Tech
187	ADV - Upload Data to FTP site	0	4 hrs	0.63 days	Wed 1/15/14	Thu 1/16/14	186	Conversion[80%]
188	ADV - Load Converted Data to Onsite Production System	0	4 hrs	0.63 days	Thu 1/16/14	Thu 1/16/14	187	Conversion[80%]
189	ADV - Load Converted Data to Onsite Test System	0	4 hrs	0.63 days	Thu 1/16/14	Thu 1/16/14	188FF	Conversion[80%]
190	ADV - Provide Data Validation Worksheet	0	4 hrs	0.63 days	Thu 1/16/14	Thu 1/16/14	188FF	Conversion[80%]
191	ADV - Reconcile any differences	0	4 hrs	0.63 days	Thu 1/16/14	Fri 1/17/14	190	Conversion[80%]
192	ADV - Make any necessary code changes	0	4 hrs	0.5 days	Fri 1/17/14	Fri 1/17/14	191FF	Conversion
193	<b>Data Refresh #4 (Integration Testing Cycle 2)</b>	0	<b>75 hrs</b>	<b>10.09 days</b>	<b>Tue 3/4/14</b>	<b>Tue 3/18/14</b>	<b>248</b>	
194	City of Columbia - Deliver Data Extract	0	0 hrs	1 day	Tue 3/4/14	Wed 3/5/14		
195	City of Columbia - Deliver Data Validation Numbers	0	0 hrs	1 day	Tue 3/4/14	Wed 3/5/14	194FF	
196	ADV - Run Initial Conversion	0	37 hrs	5.55 days	Wed 3/5/14	Thu 3/13/14	195	Conversion[83%]
197	ADV - Load Converted Data to In-house Systems	0	1 hr	0.63 days	Thu 3/13/14	Thu 3/13/14	196	Conversion[20%]
198	ADV - Run Data Integrity Report	0	1 hr	0.63 days	Thu 3/13/14	Thu 3/13/14	197FF	Conversion[20%]
199	ADV - Q/A Analysis of Converted Data	0	12 hrs	1.67 days	Thu 3/13/14	Mon 3/17/14	198	Conversion[10%], Tech
200	ADV - Upload Data to FTP site	0	4 hrs	0.63 days	Fri 3/14/14	Mon 3/17/14	199FF	Conversion[80%]
201	ADV - Load Converted Data to Onsite Production System	0	4 hrs	0.63 days	Mon 3/17/14	Mon 3/17/14	200	Conversion[80%]
202	ADV - Load Converted Data to Onsite Test System	0	4 hrs	0.63 days	Mon 3/17/14	Mon 3/17/14	201FF	Conversion[80%]











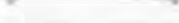


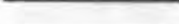




Project: Pro Forma Project Plan Date: Tue 12/18/12	Task		External Milestone		Manual Summary Rollup	
	Split		Inactive Task		Manual Summary	
	Milestone		Inactive Milestone		Start-only	
	Summary		Inactive Summary		Finish-only	
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	External Tasks		Duration-only		Progress	

ID	Task Name	Trips	Work	Duration	Start	Finish	Predecessor	Resource Names
203	ADV - Provide Data Validation Worksheet	0	4 hrs	0.63 days	Mon 3/17/14	Mon 3/17/14	201FF	Conversion[80%]
204	ADV - Reconcile any differences	0	4 hrs	0.63 days	Mon 3/17/14	Tue 3/18/14	203	Conversion[80%]
205	ADV - Make any necessary code changes	0	4 hrs	0.5 days	Tue 3/18/14	Tue 3/18/14	204FF	Conversion
206	<b>Data Refresh #5 (UAT)</b>	0	75 hrs	10.09 days	Thu 4/10/14	Fri 4/25/14	258	
207	City of Columbia - Deliver Data Extract	0	0 hrs	1 day	Thu 4/10/14	Fri 4/11/14		
208	City of Columbia - Deliver Data Validation Numbers	0	0 hrs	1 day	Thu 4/10/14	Fri 4/11/14	207FF	
209	ADV - Run Initial Conversion	0	37 hrs	5.55 days	Fri 4/11/14	Tue 4/22/14	208	Conversion[83%]
210	ADV - Load Converted Data to In-house Systems	0	1 hr	0.63 days	Tue 4/22/14	Tue 4/22/14	209	Conversion[20%]
211	ADV - Run Data Integrity Report	0	1 hr	0.63 days	Tue 4/22/14	Tue 4/22/14	210FF	Conversion[20%]
212	ADV - Q/A Analysis of Converted Data	0	12 hrs	1.67 days	Tue 4/22/14	Thu 4/24/14	211	Conversion[10%],Tech
213	ADV - Upload Data to FTP site	0	4 hrs	0.63 days	Wed 4/23/14	Thu 4/24/14	212FF	Conversion[80%]
214	ADV - Load Converted Data to Onsite Production System	0	4 hrs	0.63 days	Thu 4/24/14	Fri 4/25/14	213	Conversion[80%]
215	ADV - Load Converted Data to Onsite Test System	0	4 hrs	0.63 days	Thu 4/24/14	Fri 4/25/14	214FF	Conversion[80%]
216	ADV - Provide Data Validation Worksheet	0	4 hrs	0.63 days	Thu 4/24/14	Fri 4/25/14	214FF	Conversion[80%]
217	ADV - Reconcile any differences	0	4 hrs	0.63 days	Fri 4/25/14	Fri 4/25/14	216	Conversion[80%]
218	ADV - Make any necessary code changes	0	4 hrs	0.5 days	Fri 4/25/14	Fri 4/25/14	217FF	Conversion
219	<b>Data Refresh #6 (Go Live)</b>	1	75 hrs	9.47 days	Fri 6/13/14	Fri 6/27/14	292FS+5 d	
220	City of Columbia - Deliver Data Extract	0	0 hrs	1 day	Fri 6/13/14	Mon 6/16/14		
221	City of Columbia - Deliver Data Validation Numbers	0	0 hrs	1 day	Fri 6/13/14	Mon 6/16/14	220FF	
222	ADV - Run Initial Conversion	1	37 hrs	5.55 days	Mon 6/16/14	Tue 6/24/14	221	Conversion[83%]

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	External Tasks		Duration-only		Progress	












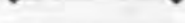
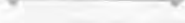







ID	Task Name	Trips	Work	Duration	Start	Finish	Predecessor	Resource Names
223	ADV - Load Converted Data to In-house Systems	0	1 hr	0.63 days	Tue 6/24/14	Tue 6/24/14	222	Conversion[20%]
224	ADV - Run Data Integrity Report	0	1 hr	0.63 days	Tue 6/24/14	Tue 6/24/14	223FF	Conversion[20%]
225	ADV - Q/A Analysis of Converted Data	0	12 hrs	1.67 days	Tue 6/24/14	Thu 6/26/14	224	Conversion[10%],Tech
226	ADV - Upload Data to FTP site	0	4 hrs	0.63 days	Wed 6/25/14	Thu 6/26/14	225FF	Conversion[80%]
227	ADV - Load Converted Data to Onsite Production System	0	4 hrs	0.63 days	Thu 6/26/14	Fri 6/27/14	226	Conversion[80%]
228	ADV - Load Converted Data to Onsite Test System	0	4 hrs	0.63 days	Thu 6/26/14	Fri 6/27/14	227FF	Conversion[80%]
229	ADV - Provide Data Validation Worksheet	0	4 hrs	0.63 days	Thu 6/26/14	Fri 6/27/14	227FF	Conversion[80%]
230	ADV - Reconcile any differences	0	4 hrs	0.63 days	Thu 6/26/14	Fri 6/27/14	229FF	Conversion[80%]
231	ADV - Make any necessary code changes	0	4 hrs	0.5 days	Thu 6/26/14	Fri 6/27/14	230FF	Conversion
232	<b>Testing Phases</b>	<b>13</b>	<b>526 hrs</b>	<b>127.24 days</b>	<b>Thu 11/14/13</b>	<b>Thu 5/22/14</b>	<b>70,158</b>	
233	<b>Conversion Testing</b>	<b>3</b>	<b>80 hrs</b>	<b>12.5 days</b>	<b>Thu 11/14/13</b>	<b>Tue 12/3/13</b>		
234	ADV - Provide Testing Worksheets	0	2 hrs	2.5 days	Thu 11/14/13	Mon 11/18/13		Project Manager[10%]
235	ADV - Walk Through Testing worksheets	3	60 hrs	2.5 days	Thu 11/14/13	Mon 11/18/13		Conversion,Project Ma
236	City of Columbia - Conduct Testing	0	0 hrs	10 days	Mon 11/18/13	Tue 12/3/13	234	
237	City of Columbia - Report any issues into CustomerWise	0	0 hrs	10 days	Mon 11/18/13	Tue 12/3/13	236FF	
238	ADV - Make any necessary Conversion changes	0	18 hrs	2.25 days	Mon 11/18/13	Thu 11/21/13	236SS	Conversion
239	City of Columbia - Re-test CustomerWise Items	0	0 hrs	8 days	Thu 11/14/13	Tue 11/26/13	238FF	
240	<b>Functional Testing</b>	<b>2</b>	<b>102 hrs</b>	<b>12.5 days</b>	<b>Thu 12/12/13</b>	<b>Thu 1/2/14</b>	<b>179</b>	
241	ADV - Provide Testing Worksheets	0	2 hrs	2.5 days	Thu 12/12/13	Mon 12/16/13		Project Manager[10%]
242	ADV - OTJL	2	60 hrs	3.75 days	Mon 12/16/13	Fri 12/20/13	241	Project Manager,Tech

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	External Tasks		Duration-only		Progress	

ID	Task Name	Trips	Work	Duration	Start	Finish	Predecessor	Resource Names
243	City of Columbia - Conduct Testing	0	0 hrs	10 days	Mon 12/16/13	Thu 1/2/14	241	
244	City of Columbia - Report any issues into CustomerWise	0	0 hrs	10 days	Mon 12/16/13	Thu 1/2/14	243FF	
245	ADV - Make any necessary configuration changes	0	20 hrs	3.33 days	Fri 12/27/13	Thu 1/2/14	243FF	Tech Lead[75%]
246	ADV - OTJL	0	20 hrs	1.25 days	Mon 12/16/13	Wed 12/18/13	244SS	Project Manager, Tech
247	City of Columbia - Re-test CustomerWise Items	0	0 hrs	5 days	Mon 12/23/13	Thu 1/2/14	245FF	
248	<b>Integration Testing Cycle 1</b>	<b>2</b>	<b>130 hrs</b>	<b>30 days</b>	<b>Fri 1/17/14</b>	<b>Tue 3/4/14</b>	<b>192</b>	
249	Develop Stress Test Plan	0	5 hrs	0.31 days	Fri 1/17/14	Fri 1/17/14		Project Manager, Tech
250	Develop Integration Test Plan	0	5 hrs	1.25 days	Fri 1/17/14	Tue 1/21/14		Project Manager[50%]
251	City of Columbia - Develop Integration Test Scripts	0	0 hrs	5 days	Fri 1/17/14	Mon 1/27/14		
252	ADV - OTJL	2	70 hrs	4.38 days	Mon 1/27/14	Fri 1/31/14	251	Project Manager, Tech
253	City of Columbia - Conduct Testing	0	0 hrs	25 days	Mon 1/27/14	Tue 3/4/14	251,86	
254	City of Columbia - Report any issues into CustomerWise	0	0 hrs	25 days	Mon 1/27/14	Tue 3/4/14	253FF	
255	ADV - Make any necessary configuration changes	0	30 hrs	3.75 days	Mon 1/27/14	Fri 1/31/14	254SS	Tech Lead
256	ADV - OTJL	0	20 hrs	1.25 days	Mon 1/27/14	Tue 1/28/14	253SS	Tech Lead, Project Man
257	City of Columbia - Re-test CustomerWise Items	0	0 hrs	7 days	Wed 1/22/14	Fri 1/31/14	255FF	
258	<b>Integration Testing Cycle 2</b>	<b>2</b>	<b>114 hrs</b>	<b>17 days</b>	<b>Tue 3/18/14</b>	<b>Thu 4/10/14</b>	<b>205</b>	
259	City of Columbia - Develop Integration Test Scripts	0	0 hrs	2 days	Tue 3/18/14	Thu 3/20/14		
260	ADV - OTJL	2	60 hrs	3.75 days	Tue 3/18/14	Mon 3/24/14		Tech Lead, Project Man

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	Summary		Inactive Summary		Finish-only	
	Project Summary		Manual Task		Deadline	
	External Tasks		Duration-only		Progress	

ID	Task Name	Trips	Work	Duration	Start	Finish	Predecessor	Resource Names
261	City of Columbia - Conduct Testing	0	0 hrs	15 days	Thu 3/20/14	Thu 4/10/14	259	
262	City of Columbia - Report any issues into CustomerWise	0	0 hrs	15 days	Thu 3/20/14	Thu 4/10/14	261FF	
263	ADV - Make any necessary configuration changes	0	24 hrs	3 days	Thu 3/20/14	Tue 3/25/14	262SS	Tech Lead
264	ADV - OTJL	0	30 hrs	1.88 days	Thu 3/20/14	Mon 3/24/14	261SS	Tech Lead, Project Man
265	City of Columbia - Re-test CustomerWise Items	0	0 hrs	6.25 days	Tue 3/18/14	Wed 3/26/14	263FF	
266	<b>User Acceptance Testing</b>	<b>4</b>	<b>100 hrs</b>	<b>18 days</b>	<b>Fri 4/25/14</b>	<b>Thu 5/22/14</b>	<b>218</b>	
267	City of Columbia - Develop Integration Test Scripts	0	0 hrs	3 days	Fri 4/25/14	Wed 4/30/14		
268	City of Columbia - Conduct Testing	0	0 hrs	15 days	Wed 4/30/14	Thu 5/22/14	267	
269	ADV - OTJL	3	80 hrs	6 days	Wed 4/30/14	Thu 5/8/14	268SS	Tech Lead, Trainer, Proje
270	City of Columbia - Report any issues into CustomerWise	0	0 hrs	15 days	Wed 4/30/14	Thu 5/22/14	268FF	
271	ADV - Make any necessary configuration changes	1	20 hrs	2.5 days	Tue 5/20/14	Thu 5/22/14	268FF	Tech Lead
272	City of Columbia - Re-test CustomerWise Items	0	0 hrs	15 days	Wed 4/30/14	Thu 5/22/14	271FF	
273	<b>End User Training</b>	<b>9</b>	<b>360 hrs</b>	<b>51 days</b>	<b>Thu 12/12/13</b>	<b>Fri 2/28/14</b>		
274	City of Columbia - Finalize End User Training Plan	0	0 hrs	5 days	Thu 12/12/13	Thu 12/19/13	240SS	
275	ADV - End User Week 1	1	40 hrs	5 days	Thu 12/19/13	Mon 12/30/13	274	Trainer
276	ADV - End User Week 2	1	40 hrs	5 days	Mon 12/30/13	Tue 1/7/14	275	Trainer
277	ADV - End User Week 3	1	40 hrs	5 days	Tue 1/7/14	Tue 1/14/14	276	Trainer
278	ADV - End User Week 4	1	40 hrs	6 days	Tue 1/14/14	Thu 1/23/14	277	Trainer

Project: Pro Forma Project Plan Date: Tue 12/18/12	Task		External Milestone		Manual Summary Rollup	
	Split		Inactive Task		Manual Summary	
	Milestone		Inactive Milestone		Start-only	
	Summary		Inactive Summary		Finish-only	
	Project Summary		Manual Task		Deadline	
	External Tasks		Duration-only		Progress	

ID	Task Name	Trips	Work	Duration	Start	Finish	Predecessor	Resource Names
279	ADV - End User Week 5	1	40 hrs	5 days	Thu 1/23/14	Thu 1/30/14	278	Trainer
280	ADV - End User Week 6	1	40 hrs	5 days	Thu 1/30/14	Thu 2/6/14	279	Trainer
281	ADV - End User Week 7	1	40 hrs	5 days	Thu 2/6/14	Thu 2/13/14	280	Trainer
282	ADV - End User Week 8	1	40 hrs	5 days	Thu 2/13/14	Fri 2/21/14	281	Trainer
283	ADV - End User Week 9	1	40 hrs	5 days	Fri 2/21/14	Fri 2/28/14	282	Trainer
284	On the Job Learning Training	6	240 hrs	30 days	Fri 1/17/14	Tue 3/4/14	248SS	
285	OTJL Training	6	240 hrs	30 days	Fri 1/17/14	Tue 3/4/14		Trainer
286	Go Live	4	204 hrs	19.88 days	Thu 5/22/14	Fri 6/20/14	232	
287	ADV - Finalize Go/No Go Criteria	0	8 hrs	10 days	Thu 5/22/14	Fri 6/6/14		Project Manager[10%]
288	ADV - Finalize Organization Readiness Checklist	0	8 hrs	10 days	Thu 5/22/14	Fri 6/6/14	287FF	Project Manager[10%]
289	ADV - Finalize Post Go Live Plan	0	8 hrs	10 days	Thu 5/22/14	Fri 6/6/14	287FF	Project Manager[10%]
290	ADV - Finalize Transition Plan to Support	0	8 hrs	10 days	Thu 5/22/14	Fri 6/6/14	287FF	Project Manager[10%]
291	ADV - Finalize Cutover Plan	0	8 hrs	10 days	Thu 5/22/14	Fri 6/6/14	287FF	Project Manager[10%]
292	City of Columbia - Go / No Go Decision	0	0 hrs	10 days	Thu 5/22/14	Fri 6/6/14	287FF	
293	ADV - Finalize Go Live Plan	0	8 hrs	10 days	Thu 5/22/14	Fri 6/6/14	287FF	Project Manager[10%]
294	Go Live	4	156 hrs	4.88 days	Fri 6/13/14	Fri 6/20/14	219SS	Application Consultant,
295	Post Live Support	2	160 hrs	11.33 days	Fri 6/20/14	Wed 7/9/14	294	
296	Week 1	1	40 hrs	2.5 days	Fri 6/20/14	Wed 6/25/14		Tech Lead,Project Man
297	Week 2	1	40 hrs	2.5 days	Wed 6/25/14	Fri 6/27/14	296	Tech Lead,Project Man
298	Week 3	0	40 hrs	3.2 days	Fri 6/27/14	Thu 7/3/14	297	Tech Lead,Project Man
299	Week 4	0	40 hrs	3.13 days	Thu 7/3/14	Wed 7/9/14	298	Tech Lead,Project Man
300	Infinity.Link	0	150 hrs	49.13 days	Tue 7/30/13	Wed 10/9/13		
301	City of Columbia - Purchase any necessary Hardware	0	0 hrs	5 days	Tue 7/30/13	Wed 8/7/13	23FS+10 days	
302	ADV - Provide Link Checklist to City of Columbia	0	1 hr	0.13 days	Wed 8/7/13	Wed 8/7/13	301	Link
303	City of Columbia - Configure Hardware	0	0 hrs	5 days	Wed 8/7/13	Wed 8/14/13	302	

Project: Pro Forma Project Plan Date: Tue 12/18/12	Task		External Milestone		Manual Summary Rollup	
	Split		Inactive Task		Manual Summary	
	Milestone		Inactive Milestone		Start-only	
	Summary		Inactive Summary		Finish-only	
	Project Summary		Manual Task		Deadline	
	External Tasks		Duration-only		Progress	



ID	Task Name	Trips	Work	Duration	Start	Finish	Predecessor	Resource Names
304	City of Columbia - Configure Network Security	0	0 hrs	5 days	Wed 8/14/13	Wed 8/21/13	303	
305	ADV - Review Link Checklist	0	8 hrs	1 day	Wed 8/21/13	Thu 8/22/13	304	Link
306	ADV - Install/Configure Link	0	80 hrs	10 days	Thu 8/22/13	Fri 9/6/13	305	Link
307	ADV - Train CSRs on Link	0	8 hrs	1 day	Fri 9/6/13	Mon 9/9/13	306	Link
308	ADV - Train IT on Link	0	8 hrs	1 day	Mon 9/9/13	Tue 9/10/13	307	Trainer
309	City of Columbia - Test Link	0	0 hrs	1 day	Tue 9/10/13	Wed 9/11/13	308	
310	City of Columbia - Develop GUI/Skin for Link	0	0 hrs	10 days	Wed 9/11/13	Wed 9/25/13	309	
311	City of Columbia - Configure Link Functionality	0	0 hrs	10 days	Wed 9/25/13	Wed 10/9/13	310	
312	ADV - Testing Support	0	45 hrs	22.5 days	Mon 9/9/13	Wed 10/9/13	311FF	Link[25%]
313	City of Columbia - Signoff on Link	0	0 hrs	0 days	Wed 10/9/13	Wed 10/9/13	311	
314	<b>Weekly City of Columbia Meeting</b>	<b>8</b>	<b>577 hrs</b>	<b>230.83 days</b>	<b>Mon 6/3/13</b>	<b>Thu 5/8/14</b>	<b>2SS</b>	
315	Weekly Review of CustomerWise	8	277 hrs	230.83 days	Mon 6/3/13	Thu 5/8/14		PM[15%]
316	Monthly Project Update	0	100 hrs	12.5 days	Tue 4/22/14	Thu 5/8/14	315FF	PM
317	Monthly Resourcing	0	100 hrs	12.5 days	Tue 4/22/14	Thu 5/8/14	315FF	PM
318	Project overview	0	100 hrs	12.5 days	Tue 4/22/14	Thu 5/8/14	315FF	PM

Project: Pro Forma Project Plan Date: Tue 12/18/12	Task		External Milestone		Manual Summary Rollup	
	Split		Inactive Task		Manual Summary	
	Milestone		Inactive Milestone		Start-only	
	Summary		Inactive Summary		Finish-only	
	Project Summary		Manual Task		Deadline	
	External Tasks		Duration-only		Progress	

## **4.1 General Implementation Approach**

**Provide a general overview of the implementation approach you plan to use for the City of Columbia that includes addressing the following items:**

**1. Describe how you transition from the sales cycle to the implementation phase of the project.**

The transition begins during the sales cycle. Our services team is involved in implementation discussions during the sales cycle and is also involved in the scope of work development. Additionally, a transition meeting is held both internally and with the customer to ensure a seamless transition from sales to services.

**2. Describe key differentiators of the approach as it relates to implementing a solution on time, within budget and with the ability to meet the needs of a diverse client like the City of Columbia.**

Advanced believes that a thorough project baseline scope ensures that both parties are aware of all deliverables related to the implementation of a new system. This baseline scope is defined during contract negotiations and once the final contract is signed, is transitioned to the Advanced Project Manager in order to develop and maintain the list of project deliverables that will be monitored very closely throughout the life of the project.

In addition, as a part of our Scope Management Plan the Advanced Project Manager is responsible for building a precise project plan that is loaded with their best estimate for the right number of vendor and client resources as well as the right amount of hours for each main task and sub-task and all milestones. This document acts as an important support to the scope in assisting the Advanced Project Manager in tracking the progress of the implementation and the optimization of resource utilization. The Advanced Project Manager works with the client to fully understand their timeline and budget requirements and ensures this is reflected in the final project plan. Thus the Advanced Project Manager has a tremendously accurate picture of exactly what needs to occur and when. If there is any variance between implementation activities and the scope and project plan the Advanced Project Manager will know immediately.

Any variance will be determined by the Advanced Project Manager who will proactively manage the project through weekly communication and on-site meetings with the client's Project Manager and Core Team. Through this frequent communication the Advanced Project Manager will be well informed as to the status of the project. If and when a change is identified the Advanced Project Manager will take immediate corrective or preventative action to keep the implementation on track.

The Advanced Project Manager will review the project schedule on a weekly basis focusing on meeting milestones in the short-term. They will also be forward looking to the tasks ahead using a rolling 90 day forecast and evaluating what-if scenarios in order to preemptively handle any potential changes to the baseline scope. By working to meet short-term and longer-term deadlines the project overall will in turn be completed on time.

Maintaining the cost baseline is closely associated with keeping the project on schedule. Hours and their associated costs are tied to specific tasks within the Project Plan. When deadlines are met within the hours allotted this ensures that costs are controlled and in line with the budget. The Advanced Project Manager takes great care in keeping the implementation on budget. The budget is reviewed on a monthly basis using a software budgeting tool that indicates where we should be and how much should have been expended at any given point in time.

As well, we have a strong record of developing and finalizing very thorough Scopes of Work. This leads to a minimization of change orders that helps us to adhere to the budget.

**3. Describe how you conclude on a preferred implementation phasing of software modules.**

Advanced will work with the City to determine implementation phasing based on the City's specific priorities and resourcing. Our implementation phasing is flexible and will require further discussion with the City to understand the City's priorities. The number of interface points between the proposed applications for replacement and CIS are minimal (primarily financials) and therefore timing of the CIS implementation is flexible.

**4. Describe your approach towards running parallel systems for a period of time.**

Testing of the system is an essential aspect of going live on a new system. Testing protocols enable users to understand the software and its capabilities. Our current users have identified that testing has aided them in facing the transition to a new system with ease and confidence.

After training on several processes, staff will be ready to start a soft parallel on the system – this is defined as performing identified processes on both systems – allowing the monitoring of processes on the new solution compared to the City's current system. During parallel testing, all functions are run simultaneously on the both systems. The resulting comparison between the output from the current system and the new software ensures that the new system is performing accurately and calculating properly.

The City's staff will be asked to complete a series of Parallel Worksheets that support the staff to work through the more complex processes involved in paralleling. The City will need to provide Advanced with the information gathered in order to adjust training and set up if necessary. These worksheets are integrated with the training process to provide staff with full documentation to refer to during parallel.

**Any unique tools, techniques or methods that you use should be described in this section.**

## **4.2 Project Management Approach**

The City of Columbia expects the Vendor to provide project management resources leading to the successful deployment of the system. This project manager will work as a team member with the City of Columbia's project management office ("PMO"). It is expected that this project manager will be "on the ground" as appropriate to team with the City of Columbia PMO. This project manager can be an employee of the Vendor or a partner of the Vendor. In either case, the costs for the project manager should be clearly denoted in the pricing section of this RFP.

As part of any significant engagement, the City of Columbia employs a project management approach that is based on the Project Management Institute's project management body of knowledge (PMBOK). The City of Columbia would expect responding Vendors to adhere to such standards as part of the project.

Provide an overall description of the Vendor project management approach towards this type of engagement and projected timing for major phases.

Provide a high-level work plan for achieving the successful deployment of your proposed system.

### **Approach**

At the core of our methodology are a set of principles and best practices that are industry-recognized within the Project Management profession. Our methods and documentation are all informed by the Project Management Body of Knowledge (PMBOK).

The PMBOK method serves as a point of reference and overall guideline informing how we manage and execute a project.

These concepts are integrated into our project right from the beginning. Before the project starts Advanced will work with the City to create a thorough Project Charter that clearly defines what is in scope. It outlines every aspect of the project including timelines, budget, interfaces, modifications, roles & responsibilities, implementation approach, deliverables, etc. This document is the guiding force by which the Advanced Project Manager will execute the project. This document is crucial in ensuring that all stakeholders clearly understand what steps are required for a successful implementation and the timeline that is allotted for completion.

During the Project Initiation & Planning phase of the implementation a kickoff meeting will be conducted on-site. During this initial project meeting the Advanced Project Manager and Implementation Specialists, on site at the City, will interview all relevant departments. Based on those interviews, a Discovery Agenda will be established. As well, the final first drafts of the Project Plan and Project Planning documents will be developed. These are the critical first steps that will drive the project.

The Project Plan will be completed in Microsoft Project, be very detailed with respect to task descriptions and show resource time commitments. It will also incorporate all key

milestones. This is a cornerstone in Advanced's method for monitoring the scheduling and budgeting adherence of the project.

Supporting the Project Plan are subset plans that include a Change Order Plan, Communication Plan, Conversion Plan and Test Plan. These are important in providing additional details about and further defining for the client the processes involved for successful project completion.

Added to the PMBOK method described above however, is the belief that every utility is unique. Therefore, our methodology ensures that we thoroughly identify and integrate your specific requirements into the implementation project based on:

- your business objectives
- your user experience
- your success criteria

We accomplish this through the Discovery process. This process involves a series of workshops whereby Advanced gathers detailed business rules and operational information from the client that provides a starting point for system configuration. Discovery workshops enable the client to determine their new, best practice business processes.

The primary outcome of these discussions is the Discovery document that will serve as the central repository for all findings in the discovery process. This will also provide an initial association between the client's business practices and the required configurations. Consequently, the discovery document will be referred to throughout the life of the implementation project.

Through the Discovery phase of the project, the discovery document will be used to track both verbal and written information, and serve as the central map to other critical utility information.

What sets our methodology apart is that it has been proven in several hundred implementation projects including those similar to Advanced and is anchored by principles backed by academic research.

This methodology in turn is delivered by qualified and experienced Project Managers that have backgrounds in the utility, software, municipal government or other notable fields.

In addition, our business focus is solely on utilities so everything we do from the Project Plan to software configuration is completed based on the decades of experience we have gained from working with hundreds of other utilities. All parts of our Project Management methodology are in line with the way you do business and will ultimately provide the City with a new set of best business practices that were gleaned from all the other utility clients we have ever worked with.

We closely monitor the scope of each of our projects with Project Managers reviewing their schedules and project plans on a weekly basis. Our team is comprised of experts in developing clear and thorough Scopes of Work as well as in-depth project plans. Therefore, all tasks that need to be accomplished and their respective deadlines are easily tracked by

our Project Managers. Our Project Managers are tasked with always looking 90 days ahead in their schedules to mitigate any risks or potential issues far ahead of time.

Our Project Managers also do extensive research on how best to schedule and resource an implementation project. Project Managers are involved in the RFP process with respect to Project Plans and Staffing Matrices so they have background information about clients early on and have an idea of resourcing requirements well before a project starts. They also gather important details during the Discovery process. New plans are also compared to previous plans to identify where efficiencies can be gained. This wealth of information is applied to all scheduling documents.

We also keep the implementation process as transparent as possible. We conduct Weekly Core Team Meetings, Monthly Project Status Reviews, Weekly Risk Management Plan Reviews and Quarterly Sponsor Reviews. Clients are never left in the dark about project status and all issues are dealt with expeditiously due to the frequency of communication.

In addition, to verify the scope, we have a formal acceptance procedure. Upon completion of a deliverable, the City shall have the right to review the Deliverables provided by Advanced under the Project Charter/Scope of Work. This aids in keeping milestones on track as well as verifying everything has been completed correctly.

Finally, we do not abandon our clients after go-live. We are present and on-site in the post live period to ensure that all outstanding issues are addressed and to ensure that the transition to the new CIS system is seamless. Our commitment to client support and training means that we do not leave until your staff has everything they need to do their jobs.

The Project Manager that would oversee the City's project would be a team member of Advanced and would be on-site as needed in support of the project. Other main staff resources will be on-site as required to ensure that there is good knowledge transfer between the City and the proposed solution team.

## High-Level Work Plan – Phase 1 – CIS Infinity

Project Start-Up (Mon 6/3/13 - Tue 7/16/13)

Milestone	Advanced Team	City of Columbia Team
<p><b>Project Pre-Planning</b></p> <p>Project Team assembled. Agenda for Kickoff Meeting identified and approved by both teams prior to beginning the project.</p> <p>A project schedule will be determined by both project managers.</p> <p>Confirm Hardware Delivery for servers and clients using CIS Infinity.</p> <p>Internal development of first draft of Project Planning documents.</p> <p>A Core Team Training agenda will be provided.</p> <p>Internal Kickoff meetings with Advanced Project Team will be conducted.</p>	<p>Project Manager</p> <p>App Con</p> <p>Tech Lead</p>	<p>Project Manager</p>
<p><b>Project Planning</b></p> <p>A kickoff meeting will be conducted on site. During this initial project meeting the Advanced Utility Systems Project Manager and Implementation Specialists, on site at the City, will interview all related departments. Based on those interviews, a Discovery Agenda will be established. The final first drafts of the Project Plan and Project Planning documents will be developed. These are the critical first steps that will drive the project.</p>	<p>Project Manager</p> <p>App Con</p> <p>Tech Lead</p>	<p>Project Manager</p> <p>Core Team</p> <p>Technical Team</p>

Milestone	Advanced Team	City of Columbia Team
<p><b>Install</b></p> <p>The install of CIS Infinity will take place on site over four days. Several deliverables to be provided at the end of install: Installation Report, Installation Verification Report, and a Technical Architecture Diagram.</p> <p>Installation of CIS Infinity on the application server and data on the data server. Client install on all users accessing CIS Infinity.</p> <p>Exclusive access to the server is necessary and technical staff to work closely with Advanced installers.</p> <p>Sign off will be required on all training once complete.</p> <p><b>**All necessary hardware and software to be in place and tested on network prior to installation.</b></p>	<p>Project Manager</p> <p>Installer, DBA</p>	<p>Project Manager</p> <p>Technical Team</p>

**Discovery (Tue 7/16/13- Thu 11/14/13)**

Milestone	Advanced Team	City of Columbia Team
<p><b>Discovery</b></p> <p>After Core Team Training, there will be four weeks of on-site Discovery Workshops. These workshops will be conducted by the Advanced Application consultant and will cover all relevant pieces of CIS Infinity functionality.</p> <p>One off the Discovery weeks will specifically focus on requirements for Interfaces and Modifications.</p> <p>The deliverables from this Discovery process will be a Discovery Document containing an overview of the City's business processes within Infinity and an Interface and Modification Strategy</p>	<p>Project Manager</p> <p>App Con</p> <p>Technical Lead</p>	<p>Project Manager</p> <p>Core Team</p>



<b>Milestone</b>	<b>Advanced Team</b>	<b>City of Columbia Team</b>
<p><b>Document.</b></p> <p>As a final deliverable of this phase, the Advanced and the City's project managers will develop and agree on a list of Go/No-Go criteria for go-live at the end of the project.</p>		
<p><b>Configuration</b></p> <p>The initial configuration of the City's system on the Advanced servers will start after the third week of Discovery (the last week of the base system Discovery).</p> <p>The initial configuration will be delivered with the initial Rollout listed in the above Conversion section.</p> <p>This will be done by the Advanced Technical lead, with questions and answers being sent to the Core Team as necessary.</p>	<p>Project Manager</p> <p>Technical Lead</p>	<p>Project Manager</p> <p>Core Team</p>
<p><b>Interfaces and Modifications</b></p> <p>After the approval of the Interface and Modification Strategy Document, the Development team will begin developing the Functional Specifications for the City to approve. After approving those specifications, Development will code, test, and deliver the interfaces and modifications. End User Documentation and Test Scripts will also be developed and delivered for review by the Core Team. Those test and documents will be used in the Testing section below (Integration Test).</p>	<p>Project Manager</p> <p>Development</p>	<p>Project Manager</p> <p>Core Team</p> <p>Technical Team</p>

**Conversion (Mon 7/8/13 - Fri 9/27/13)**

<b>Milestone</b>	<b>Advanced Team</b>	<b>City of Columbia Team</b>
<p><b>Develop Conversion Plans</b></p> <p>The Data Conversion Specialist from Advanced will develop an initial draft of the Conversion Plan, including the audit plan to verify the data. From that, an initial draft of the Conversion Cutover Plan will also be developed.</p> <p>An initial extract of legacy data will be provided by the City's Technical Team for an assessment by the Advanced Data Conversion Specialist. A Data Mapping Document from the legacy system to CIS Infinity will be created based on that assessment.</p>	<p>Project Manager</p> <p>Data Conversion Specialist</p>	<p>Project Manager</p> <p>Technical Team</p>
<p><b>Data Conversion Workshop</b></p> <p>An on-site Conversion Data Workshop will be conducted over three days. This workshop will consist of a review of the Data Mapping Document.</p> <p>There are several deliverables as outputs of the Data Conversion Workshop: Legacy Clean-up List, Baseline Account List (to be used for Conversion verification and testing), and a modified Conversion Plan based on the data gathered in the Workshop.</p>	<p>Project Manager</p> <p>Data Conversion Specialist</p>	<p>Project Manager</p> <p>Technical Team</p> <p>Core Team</p>
<p><b>System Configuration Continues</b></p> <p>Configuration activities on-going based on testing results.</p>	<p>Project Manager</p> <p>Technical Team</p> <p>Testing Team</p>	<p>Project Manager</p> <p>Technical Staff</p>

Milestone	Advanced Team	City of Columbia Team
<p><b>Data Mapping (Conversion Programming)</b></p> <p>Updates to the Data Mapping Document will be done and an updated document delivered based on information gathered in the Data Conversion Workshop.</p> <p>Based on the updated Data Mapping document, conversion programming will commence. After three weeks of programming at the Advanced home office, another on-site Data Conversion Workshop will be conducted. At this time the City's team will be able to view a large portion of their data within CIS Infinity (on an Advanced system, not yet delivered and loaded on the City's server). More improvements and further clarification of data conversion items will be gathered.</p> <p>An additional week of conversion programming will be done based on the data from the second workshop, and an updated Conversion Cutover Plan will be provided.</p>	<p>Project Manager</p> <p>Data Conversion Specialist</p>	<p>Project Manager</p> <p>Technical Team</p> <p>Core Team</p>

Milestone	Advanced Team	City of Columbia Team
<p><b>Rollout (Cut 1)</b></p> <p>After conversion mapping and programming, a one-week rollout of the initial Data Conversion on-site (Cut 1). The converted legacy data will be loaded onto the City's server, with several environments created for testing, training, etc.</p> <p>Several deliverables will be provided as a result of the on-site rollout: a Percent Complete Report for the converted legacy data, an updated Audit plan for verification of converted data, and an updated Conversion Cutover Plan with the initial set of timing benchmarks.</p> <p>"Cut 1" is the first Mock Go Live; this is the first time running through the ultimate conversion go-live process.</p>	<p>Project Manager</p> <p>Technical Lead</p>	<p>Project Manager</p> <p>Technical Team</p>

**Core Team Training (Mon 7/22/13 - Thu 10/24/13)**

Milestone	Advanced Team	City of Columbia Team
<p><b>Core Team Training</b></p> <p>Core Team Training consists of an introduction to all of the functionality within the CIS Infinity system that applies to the City's business processes.</p> <p>A general list of topics covered include:</p> <p>Overview / Daily Process, Cash, Collections, Billing, Inventory, Service Orders, Reports, System Administration, Security</p> <p>Classroom training will ensure the basics of system operation are provided, and that system features are presented and understood.</p> <p>Sign off will be required on all training once complete.</p>	<p>Project Manager</p> <p>Trainer</p>	<p>Project Manager</p> <p>Core Team</p>

**Testing (Thu 11/14/13 - Thu 5/22/14)**

<b>Milestone</b>	<b>Advanced Team</b>	<b>City of Columbia Team</b>
<p><b>Functional Test Planning</b></p> <p>The first three weeks of Functional Test will be development of the Functional Test Plan and Functional Test Scripts by the Advanced Application Consultant.</p> <p>Upon delivery and acceptance of those deliverables, Functional Testing begins.</p>	<p>Project Manager</p> <p>App Con</p> <p>Technical Lead</p>	<p>Project Manager</p>
<p><b>Functional Test Planning</b></p> <p>Functional Testing tests the base functionality of the Infinity system via the City's business processes as described in the Discovery Document.</p> <p>Functional Testing is modular – the City's Core Team will test each individual module (e.g., New Services) rather than End-to-End Testing.</p> <p>There will be Functional Testing support from the Application Consultant (both on-site and remote) and corrections to configuration and code being provided by the Technical Lead and Development.</p>	<p>Project Manager</p> <p>App Con</p> <p>Technical Lead</p>	<p>Project Manager</p> <p>Core Team</p>

Milestone	Advanced Team	City of Columbia Team
<p><b>Rollout (Cut 2)</b></p> <p>After completion of Functional Testing, part of test is concluded with the second Rollout of conversion and configuration. The deliverables associated with this Rollout (Cut 2) will be the same as with Cut 1: a Percent Complete Report for the converted legacy data, an updated Audit plan for verification of converted data, and an updated Conversion Cutover Plan with the second set of timing benchmarks. "Cut 2" is the second Mock Go Live.</p>	<p>Project Manager</p> <p>Technical Lead</p>	<p>Project Manager</p> <p>Technical Team</p>
<p><b>Integration Test Planning</b></p> <p>Development of the Integration Test Plan and Test Scripts that need to be developed by the client.</p> <p>The City's Core Team will use the Functional Test Scripts to develop their End-to-End Test Scripts before the execution of Integration Test.</p>	<p>Project Manager</p> <p>App Con</p>	<p>Project Manager</p> <p>Core Team</p>
<p><b>Integration Test Cycle 1</b></p> <p>Integration Test is executed by the City's Core Team and Technical Team with support from the Advanced Application Consultant and Technical Lead.</p> <p>Integration Test is End-to-End Testing with all modules, reports, interfaces, and modifications.</p>	<p>Project Manager</p> <p>App Con</p> <p>Technical Lead</p>	<p>Project Manager</p> <p>Core Team</p> <p>Technical Team</p>

Milestone	Advanced Team	City of Columbia Team
<p><b>Rollout (Cut 3)</b></p> <p>After completion of Integration Testing Cycle 1, the second Rollout of conversion and configuration. The deliverables associated with this Rollout (Cut 3) will be the same as with Cut 1: a Percent Complete Report for the converted legacy data, an updated Audit plan for verification of converted data, and an updated Conversion Cutover Plan with the third set of timing benchmarks. "Cut 3" is the third Mock Go Live.</p>	<p>Project Manager</p> <p>Technical Lead</p>	<p>Project Manager</p> <p>Technical Team</p>
<p><b>Integration Test Cycle 2</b></p> <p>Integration Test Cycle 1 will include several changes and corrections to configuration, conversion, and code. Integration Test Cycle 2 is intended to re-execute a subset of the Cycle 1 scripts to ensure that none of the changes have impacted other areas of the system negatively.</p> <p>Integration Test Cycle 2 is executed by the City's Core Team with support from the Advanced Application Consultant and Technical Lead.</p>	<p>Project Manager</p> <p>App Con</p> <p>Technical Lead</p>	<p>Project Manager</p> <p>Core Team</p> <p>Technical Team</p>



Milestone	Advanced Team	City of Columbia Team
<p><b>Rollout (Cut 4)</b></p> <p>After completion of Integration Test Cycle 2, this part of test is concluded with the fourth Rollout of conversion and configuration. The deliverables associated with this Rollout (Cut 4) will be the same as with Cut 1: a Percent Complete Report for the converted legacy data, an updated Audit plan for verification of converted data, and an updated Conversion Cutover Plan with the fourth set of timing benchmarks. "Cut 4" is the fourth Mock Go Live.</p>	<p>Project Manager</p> <p>Technical Lead</p>	<p>Project Manager</p> <p>Technical Team</p>
<p><b>User Acceptance Testing</b></p> <p>After Cut 4, there is a code freeze before the final set of testing (User Acceptance Test).</p> <p>The teams will work together to develop a User Acceptance Test Plan and Strategy and select the Integration Test Scripts that will be used for the final User Acceptance Test.</p> <p>User Acceptance Test is four weeks in duration. It is executed by the City's Core Team with support from the Advanced Application Consultant and Technical Lead.</p> <p>No corrections should happen during this phase unless they are critical in nature and agreed upon with risks addressed by both parties.</p>	<p>Technical Team</p> <p>Conversion Team</p>	<p>Project Manager</p> <p>Technical Staff</p>

**End User Training (Thu 12/12/13- Fri 2/28/14)**

<b>Milestone</b>	<b>Advanced Team</b>	<b>City of Columbia Team</b>
<b>End User Training Prep</b> Development of the End User Training Plan and time for Trainer Prep on the City's business processes.	Project Manager Trainers	Project Manager Core Team
<b>End User Training</b> After Trainer Preparation, any customization of the Training Materials provided by Advanced will be completed by the City's Core Team. These materials can be updated to the degree the City determines is appropriate for their users, based on their experience in Functional and Integration Test Cycle 1.	Project Manager Trainers	Project Manager Core Team End Users

**Go-Live and Post Go-Live (Thu 5/22/14- Wed 7/9/14)**

<b>Milestone</b>	<b>Advanced Team</b>	<b>City of Columbia Team</b>
<p><b>Go-Live Planning</b></p> <p>Finalizing Go-Live Planning and making the Go/No-Go Decision for Go Live.</p> <p>Includes the following deliverables: Go/No-Go Criteria, Organizational Readiness, Cutover Plan, Post Go-Live and Transitional Support Plan.</p> <p>There is a buffer between the Go/No-Go Decision and the Go-Live deployment to allow time for finishing any lingering deliverables, training, etc.</p>	<p>Project Manager</p> <p>App Con</p> <p>Technical Lead</p>	<p>Project Manager</p> <p>Core Team</p> <p>Technical Team</p>
<p><b>Go-Live</b></p> <p>A final data conversion will be run as the first part of Go-Live. A final legacy extract, run the conversion programs, execute any post-go-live clean up items, and validation of the data to ensure that the Production system is ready for deployment.</p> <p>Final Balance will be achieved and sign off of balance obtained. Final check of all control files and clearing of temporary files from testing will be cleared. A down day will ensure that final checks are in place prior to moving to the LIVE on the system.</p> <p>Trainers/Implementation experts available for one-to-one updates and monitoring.</p> <p>Four weeks after the go-live conversion and Production is opened for business at the City, there is a Go-Live Acceptance Sign-Off.</p>	<p>Project Manager</p> <p>App Con</p> <p>Technical Lead</p>	<p>Project Manager</p> <p>Core Team</p> <p>Technical Team</p>

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Milestone	Advanced Team	City of Columbia Team
<p><b>Post Go-Live</b></p> <p>A post-live strategy will be developed during the project. This will include any outstanding implementation issues. This will also include post-live training (technical and functional) as necessary.</p> <p>Advanced Utility Systems will re-visit and be on site for the first billing with a Trainer and Implementation Specialist to ensure a smooth transition.</p> <p>The Project Managers from both teams will monitor post live activities through the warranty period to ensure that all outstanding issues are addresses and to ensure that the transition to the new billing system runs smoothly.</p>	<p>Project Manager</p> <p>App Con</p> <p>Technical Lead</p>	<p>Project Manager</p> <p>Core Team</p> <p>Technical Team</p>

## **4.3 Hardware, Software & Storage Design & Installation Consulting**

The City of Columbia usually installs the required hardware and communications equipment for applications. We are open to other proposals to accomplish a successful deployment. The Vendor is expected to specify, furnish, deliver, install and support all application and system software that may include pre-installing or equipment staging. What do you propose for the most effective deployment of hardware, communications and related equipment?

Additionally, the City of Columbia expects the selected Vendor to conduct a test of the system backup and recovery solution prior to go-live.

As part of the project initiation phase, the Advanced technical team will have discussions with the City to confirm hardware and communication requirements so that the City can prepare the environment for the installation of the software by Advanced. Discussions will include timing of installation, hardware specifications, remote access requirements, number of environments (e.g. production, test), client installation requirements etc. Advanced also ensures that the City's technical team is proficient at installing the system.

As part of the testing phase Advanced will include testing for backup/recovery provided that the City has the hardware in place to perform such testing during the testing phase of the project.

## **4.4 Data Conversion Plan**

It is anticipated that data conversion will occur when migrating to the new application. The Vendor is expected to assist the City of Columbia in the conversion of both electronic and manual data to the new system. It is expected that the City of Columbia will be responsible for data extraction from current systems and data scrubbing and data pre-processing and that the Vendor will be responsible for overall data conversion coordination, definition of file layouts, and data import and validation into the new COFERS. Please provide pricing for data conversions in the associated Microsoft Excel pricing spreadsheet.

**1. Describe your general approach towards data conversion and how you would work with the City of Columbia to conclude on what should be converted.**

The data extraction phase begins with the City extracting the existing billing system data into an Excel spreadsheet. This, along with detailed file layouts provides Advanced with the foundation for the new database.

Advanced utilizes a three-staged conversion process that uses a combination of manual and automated procedures to accomplish a unique set of objectives within each stage of the conversion process.

### **Stage I: Pre-Conversion Activities**

The data clean-up activities, which are a part of the Stage I pre-conversion process, are primarily manual but can be supported by a series of automated processes which help identify inaccurate and/or missing data. These pre-conversion activities are essential to facilitate the automated conversion processes which follow.

Controls will be established to manage and measure the progress of conversion.

#### *Correct Existing System's Data*

This activity is the step required to research and enter, using current screens in the existing system, any additional information or corrected information into the current system's databases before conversion activities commence. The database provides the source of the automated portion of the conversion activities, so the City's staff will need to ensure that these databases are as complete and as correct as possible before the conversion occurs.

The City's staff would analyze the data in the existing system for likely areas to cleanse. Inconsistencies in addresses are a good example of potentially problematic data that needs to be corrected. The Data Conversion Workshop conducted will also highlight several areas needing further investigation in the existing system's database. Further areas to cleanse will come from a list provided at the conclusion of the Data Conversion Workshop.

#### *Provide Table Layouts for the Existing System*

The City would be required to provide complete table layouts for data within the existing system. This includes basic database structure, field names included in specific tables, and any restrictions on values allowed for particular fields. Entity Relationship Diagrams (ERDs) are helpful if available.

#### *Provide Screen Shots of all Existing System Screens*

The City would be asked to provide screen shots of the business process screens within the existing system. These screen shots will be used for reference throughout the conversion programming process and can also assist later in developing and executing test scripts to ensure that business process requirements are being met.

#### *Provide Baseline Accounts*

The City would provide a set of baseline accounts that cover the variety of different scenarios that can occur in the existing system. This should include: small and large meter accounts, residential and commercial accounts, various combinations of services on accounts, different rate scenarios on accounts, and any special one-off accounts. In some cases, true one-off accounts that are low in total number but significant in their variation from the norm may need to be handled manually in the conversion process.

### **Stage II: Conversion Activities**

The Stage II Conversion Activities cannot begin until all of the pre-conversion activities have been successfully completed. The City would determine when the staff and the conversion data were all ready to begin conversion activities with input from Advanced

The detailed Stage II activities would comprise a four step automated process which will be supported by some manual activities as follows:

- Build Conversion Database from the existing system's database and the defaults (both values and algorithms),
- Produce audit reports to validate the data (including error reports),
- Validate and update the data contained in the existing system's database,
- Migrate the existing system's database to the new database.

Each of these four steps to conversion is comprised of a series of automated and manual activities to ensure that the objectives of the conversion stage will be met. These detailed activities are described in the following sections.

#### *Build Conversion Databases Including Defaults*

The existing system's database will be exported and then migrated to the new software database. During this process, default values or calculations will be merged to the proper data elements. During the course of the implementation, further defaults may be added based on results from the business process discovery sessions and decisions made as a result of testing throughout the project.

#### *Produce Audit Reports*

After the intermediate database is populated in step one, audit reports will be produced including error listings.

Problems identified with the key data elements will be reported as exceptions for a manual research and correction process and for an automated update of the data before this database will be migrated into the actual database.

Validation in the case of data conversion does not necessarily mean matching exactly the totals between the existing system's database and the new database. It is important to know what the totals are from each and the source of any differences (if present) in those numbers must be understood and accepted by the City and Advanced.

#### **Stage III: Post-Conversion Activity**

Throughout the implementation, there may be data elements on specific accounts which cannot be properly populated through the automated conversion processes. A list will be maintained of items requiring correction after the converted data has been loaded. The correction of these items will be assigned to members of both City and Advanced staffs, depending on the nature of the correction.

#### **2. Please describe your organization's recommended approach toward retention of legacy data.**

It is completely up to the City as to the amount of legacy data to be retained.

Advanced recommends that whatever legacy data that is retained be made available in read-only format and that over time access to the data be limited to a few users so as to eliminate a dependency on it for looking up customer information and history.

## 4.5 Report Development

For specific reporting requirements, it is anticipated that the Vendor will take the lead on developing any reports required as part of the initial deployment of the system. The Vendor is expected to provide specialized knowledge and information to the City staff during the development of needed reports, via technical training on the tools used for report development, database schema and architecture, etc. In addition to providing responses to the following items, the Vendor must complete the **Report Development Form** in section 6.8 of this RFP, and include it in this section of the response.

**Provide information on your reporting approach including:**

### **1. Description of various methods of reporting including Business Intelligence,**

Hundreds of standard reports are available in the proposed solution. Beyond standard reports, ad-hoc reporting and query capabilities are available to allow users to extract the information they need. This also includes the ability to export information to Excel or similar output format. See solution overview for more information on reporting capabilities.

As well, Advanced **optionally** offers Infinity.BI, a powerful business analytics solution in partnership with HiQube. This tool provides a rich set of dynamic reports / dashboards which can be tailored to address the unique business intelligence needs of the City.

### **2. Methods for the City to identify, specify, and develop required custom City reports during the implementation.**

Advanced will conduct Functional Discovery Analysis Workshops. These workshops will be led by Advanced to appropriately review and confirm all required information for these areas.

Advanced will create a Functional Discovery Document that will include all areas addressed including reporting. This process provides the City with an opportunity to identify all required reports including custom reports.

Reporting requirements will be reviewed to establish expectations on what reports will be required. The discussion will include searches, querying, and a review of canned reports.

Reports identified as required in the Discovery process will be documented. Any required reports that do not have a standard report match will need to be developed as a modified standard report or a custom report.

Each custom developed report will contain a Report Specification. The Report Specification will have two primary sections 1) Functional Design and 2) Technical Designs. The Report Specifications will at a minimum contain: Key Elements of the deliverable will be: Report Name, General Description, Description of the Departments that use the report, Report Owner, Data Fields and Descriptions Needed For the Report, Mathematical Calculations for the Report, Sorting, Filtering, Security and any other items deemed necessary by the City.



## 6.8 Vendor Questionnaire - Report Development Form

1.	What is the query tool and report writer that Vendor is proposing?
	<p>Searching is available from the main customer service form and is the simplest method of querying the database to locate information related to customers.</p> <p>In addition to the "canned" searches, we have incorporated an "Advanced Search" method that allows users to query more than one table of information at a time and place conditions on the searches. This option allows for a more complex query and makes available many more fields.</p> <p>At times, our clients would like to use the data from their queries to prepare letters, service orders or to add a note, send an email or generate user tasks. Advanced has incorporated a Filter option in CIS Infinity to assist users with this requirements.</p> <p>Crystal Reports v. XI is embedded in CIS Infinity. Advanced recommends that a few key report generating users purchase Crystal Reports to allow them to format reports for presentation purposes.</p>
2.	What is your definition of a report?
	<p>Reports include block summaries, general ledger and transaction reports for accounting and balancing purposes, customer listings and equipment and metering reports for statistical purposes.</p>
3.	Describe your process for determining the scope of what reports will have to be developed (not out-of-the-box) and what effort it will take to develop and test them?
	<p>Reports identified as required in the Discovery process will be documented by Advanced in a <b>Functional Reports Matrix</b> that compares the CIS Infinity Reports to the existing required legacy reports. In many cases, the existing legacy report may already be configured as a standard report in CIS Infinity. If this condition exists, Advanced will match the report names to each other in the report matrix. Any required reports that do not have a standard report match will need to be developed as a modified standard report or a custom report. The level of effort will be based on the complexity of the report. The Report Specialist will estimate the level of effort required for each report.</p>
4.	It is expected that the system will provide the ability for end-user querying and reporting to be performed without impacting the performance of the transactional system. Does your proposal meet this expectation?
	<p>Yes. The CIS Infinity database is indexed and optimized for performance. We have</p>

	<p>database specialists whose function is to optimize performance of the software. Resource intensive reports may be scheduled using the built in Scheduler functionality. Advanced has customers with 200,000+ customers, and we have not experienced performance degradation as a result of reporting/querying.</p>
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## **4.6 Integrations and Interfaces**

It is expected that information generally would need to be entered only once into the system. Modules within the system should be integrated in real-time with each other such that batch processes are not required to transfer information from one area of the system to another unless that is the preference of the City. Existing City interfaces between core modules that may currently exist (e.g., AP posting to GL) are not included as they are covered in each module's specifications. If a Vendor is not proposing all lines of businesses, please provide pricing for these integrations in the cost column of the specifications.

**1. Describe your approach towards interfacing and integration with other solutions including use of specific tools, methods and standards.**

Advanced takes the method that is most flexible and applicable to the specific interface requirements. For real-time interfaces, Advanced typically uses either Web services or shared interface tables as the mechanism for exchanging data. For example, our Master Address interface, and standard Tele-Works IVR uses Web services. Our work order management system interfaces use shared interface tables. Our central cash receipting interfaces have used both Web services and shared interface tables.

The decision of which integration method to use is based to a large degree on the capabilities of the application with which we are integrating.

**2. Describe data exchange standards (e.g. XML, Web Services, or EDI) supported or provided by your product.**

Advanced supports a variety of external interface types, including SOAP/.NET Web services, stored procedures, direct queries/views, shared/exposed interface tables, XML, CSV, TXT (any delimiter). This can include real-time or batch type interfaces. Advanced works with the client and the other vendor to determine the best integration approach for each particular interface.

CIS Infinity includes the Advanced Integration Manager (AIM), specifically designed for importing and exporting data to third party systems. It allows for complex import/exports to be configured within CIS Infinity, using the graphical user interface, in a variety of formats and with business logic, in order to support the requirements of various third party interfaces.

**3. As it pertains to the City's current technical environment described previously, identify potential issues for integrating with specific technologies that are used within the City.**

With respect to hardware/infrastructure, there are absolutely no concerns with the City's current technical environment. Like many of our clients, WAN are utilized to connect multiple buildings/sites. Also, the proposed solution can be run in a fully virtualized environment (many of our clients are utilizing this technology).

Advanced has extensive experience interfacing and integration with third party products and we do not foresee any issues with interfacing with any of the City's current technologies.

**4. As part of the RFP, there is a Microsoft Excel pricing spreadsheet which contains the interface table above. Please provide pricing for each of the applicable interfaces in that spreadsheet.**

Pricing for interfaces has been included in the Microsoft Excel pricing spreadsheet.

## 4.7 Training

In addition to providing responses to the following items, the Vendor must complete the Training Form in section 6.9 of this RFP, and include it in this section of the response.

The City of Columbia intends to explore the advantages, disadvantages and related costs of two implementation training approaches:

**1. End User Training Approach:** All end-user and technical training will be performed on-site through implementation and be performed by the Vendor.

a. End user implementation training will be provided by the Vendor and include joint participation by the relevant City of Columbia process owner team lead supporting the process area in the new software system.

### Core team training

As part of the first phase of the implementation of CIS Infinity, the City will identify a Core team. The Core team is trained in advance of the end users in preparation for ongoing testing of the software during the Conversion, Soft Parallel and Hard Parallel phases of the project. The core team can become the core support for end users once the implementation is complete leaving the City with system experts once the Advanced Training Specialists are gone. The Core Team at the City assumes a maximum of eight (8) users.

### End User training

Once the Core Team is trained and the first part of testing is complete, the End User training will begin. The training will be performed based on the training plan that is prepared by the project managers from both teams to ensure that the needs of the users are met at the City.

**b. Technical Implementation training will include training for City of Columbia IT staff on the technologies required to support the new COFERS system.**

Advanced provides training that is designed for staff who maintain the application and database. This would include such items as maintenance routines, system architecture consulting, application of new executables and builds and recommended back-up routines based on the unique requirements of the client. System administration training is also provided so that the City can update the software configuration to support business process changes.

**2. Train the Trainer Approach:** The Vendor will incorporate a "train the trainer" approach where only key City of Columbia team leads will be trained through implementation on their modules and then they will train the remainder of the City of Columbia staff in their respective areas.

A Train the Trainer approach can be supported by Advanced. The City will need to assess the abilities of staff to train resources. Depending on the complexity of the solution, trainers may need to attend multiple sessions of each course so that they have adequate knowledge to train others on the software.

**a. There would be roughly 8-10 subject matter experts (SME's) for each module including one team lead. This training would be provided at a City of Columbia facility.**

The City's 8-10 SME's would be trained and would become the core support for end users once the implementation was complete leaving the City with system experts once the Advanced Trainers were gone.

**b. Training materials supplied by the Vendor would be used by SME's and team leads for training their staff.**

Advanced provides a complete set of standard **Training Workbooks**. These provide the additional benefit of giving users the opportunity to learn using the same documentation that they keep as reference material.

**c. Web conference or remote online tutorial sessions would be available to SME and team lead staff to participate in after initial training was completed in their module.**

Advanced provides e-learning training courses all year round for any new client employees. These classes can also be taken by existing clients as refreshers. Special requests can be made for courses and dates that are not included in the calendar.

**d. Technical implementation training will include training only key IT staff (3-4) to support the new system.**

Advanced will provide training that is designed for staff who maintain the application and database. This would include such items as maintenance routines, system architecture consulting, application of new executables and builds and recommended back-up routines based on the unique requirements of the client. System administration training is also provided so that the Town can update the software configuration to support business process changes.

**The Vendor should provide an overall description of *both* training methods, including the following:**

- **General timeframes in which both types of training will be conducted**

1. *End User Training Approach:*

Core Team Training (Mon 7/22/13 - Thu 10/24/13)

End User Training (Thu 12/12/13- Fri 2/28/14)

2. *Train the Trainer Approach:*

Additional training session for City trainers will occur after core team and prior to the end user training.

- The Vendor must list the nature, level, and amount of training to be provided for both options in each of the following areas:
  - Technical training (e.g., programming, operations, etc.)
  - User training
  - Other staff (e.g., executive level administrative staff)

This table provides an outline of the training program Advanced provides during your CIS Infinity implementation.

<b>Name of Course</b>	<b>Recommended Audience</b>	<b>Length of Course</b>
System Overview and Daily Processing	Any staff who will be using the system in any capacity and will who process daily functions on CIS Infinity.	3 days
Payment Processing	Any staff that process cash.	1 day
Collections	Any staff who monitor or process account collections.	2 days
Generating Service Orders	Any staff who would be working with service orders.	½ day
Billing	Any staff who bill accounts on a regular basis.	2 days
Creating and Managing Service Orders	Any staff that would be creating new service order templates and/or managing service orders.	1 day
Asset Management	Any staff who monitors the company's asset inventory systems including meters, transformers, water and backflow devices. Modules available: a: Electric Meter Inventory b: Water Meter Inventory c: Gas Meter Inventory d: Backflow Inventory e: Street Light Inventory f: Water Heater Inventory g: Instrument Transformer Inventory h: Distribution Transformer Inventory i: Propane Inventory j: Solid Waste	1 day per Inventory System
Reports	Any staff with responsibility for reporting on system data	1 day
Month/Year End Reports	Any staff responsible for month/year end reporting or procedures.	1 day

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System Administration	Usually one or two staff members in a supervisory capacity who are responsible for administering the system-changing control files, altering user menus, maintenance routines, system architecture or back-up routines. etc.	2 days
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The following draft sequences of training was developed based on examples of training schedules from previously implemented customers of Advanced. This schedule may change to take into account information gathered during ongoing discussions.

The skill level of the City's users (particularly their experience with Windows) and the way staffing resources are allocated (whether staff is assigned individual aspects of the billing process or whether all staff uses all aspects) are the primary factors which will be taken into consideration when a final training plan is determined.

### 1. End User Training Approach – Proposed Schedule:

#### Core Team Training

Sequence	Training Module	Duration of Training
1	Overview and Daily Process	3 days
2	Cash Processing	1 day
3	Billing	2 days
4	Collections	2 days
5	Service Order Design	0.5 days
6	Generating Service Orders	0.5 days
7	Reports	1 day
8	G/L	0.5 days
9	Rates	1 day
10	Security	0.5 days
11	Scheduler	0.5 days
12	System Administration	1 day
13	Asset Management	3.5 days
14	Testing Workshop	1 day
<b>Total Number of Classroom Days</b>		<b>18 days</b>

#### End User Training

Sequence	Training Module	Duration of Training
1	Occasional User	1 day
2	Overview and Daily Process	9 days
3	Cash Processing	3 days
4	Billing	6 days



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Sequence	Training Module	Duration of Training
5	Collections	6 days
6	Generating Service Orders	1.5 days
7	Reports	3 days
8	Rates	1 day
9	Security	1.5 days
10	Scheduler	0.5 days
11	System Administration	3 day
12	Asset Management	10.5 days
<b>Total Number of Classroom Days</b>		<b>46 days</b>

**On the Job Learning**

Throughout the implementation phase and the first several weeks live on CIS Infinity users will have full access to the same Advanced Training Specialists who trained them. This ensures Advanced is totally familiar with the needs of users and that users have a high level of comfort when they first go live on the system. Our commitment to training and client support means that we do not leave until your staff has everything they need to do their jobs.

Sequence Number	Training Module	Participants	Duration
1	Billing Processes – Practical Application & Structured Practice Time	All users expected to process billing who may benefit from additional scheduled practice time under the guidance of a training specialist.	6 days
2	Cash Processes - Practical Application & Structured Practice Time	All users expected to process cash that may benefit from additional scheduled practice time under the guidance of a training specialist.	4 days
3	Customer Service Processes – Practical Application & Structured Practice Time	All users expected to process daily customer service functions who may benefit from additional scheduled practice time under the guidance of a training specialist.	6 days
4	Collection Processes - Practical Application & Structured Practice Time	All collections staff who may benefit from additional scheduled practice time under the guidance of a training specialist.	6 days

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Sequence Number	Training Module	Participants	Duration
5	Managing Service Orders - Practical Application & Structured Practice Time	All users expected to manage service orders who may benefit from additional scheduled practice time under the guidance of a training specialist.	4 days
6	Hard Parallel	All Staff as they parallel their normal functions on both systems and encounter questions	5 days
7	Live Week / Post Live Week	All Staff as they process their normal functions during the first week of live and encounter questions	5 days
<b>Total On the Job Learning Days</b>			<b>36</b>

**Summary of Training Days**

Type of Training	Days
Total Core Team Classroom Training Days	18 days
Total End User Classroom Training Days	46 days
Total On the Job Learning Days	36 days
<b>Total Days</b>	<b>100 days</b>

**2. Train the Trainer Approach – Proposed Schedule:**

**Core Team and Trainer Training**

Sequence	Training Module	Duration of Training
1	Overview and Daily Process	3 days
2	Cash Processing	1 day
3	Billing	2 days
4	Collections	2 days
5	Service Order Design	0.5 days
6	Generating Service Orders	0.5 days
7	Reports	1 day
8	G/L	0.5 days
9	Rates	1 day
10	Security	0.5 days
11	Scheduler	0.5 days
12	System Administration	1 day
13	Asset Management	3.5 days
14	Testing Workshop	5 day

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Sequence	Training Module	Duration of Training
<b>Total Number of Classroom Days</b>		<b>22 days</b>

**Client Provided End User Training**

Sequence	Training Module	Duration of Training
1	Occasional User	0.5 day
2	Overview and Daily Process	12 days
3	Cash Processing	3 days
4	Billing	6 days
5	Collections	6 days
6	Generating Service Orders	2 days
7	Reports	3 days
8	Rates	1 day
9	Security	2 days
10	Scheduler	0.5 days
11	System Administration	4 days
12	Asset Management	14 days
13	Testing Workshops	20 days
<b>Total Number of Classroom Days</b>		<b>74 days</b>

**Web Conference and/or Remote Assistance**

Sequence Number	Training Module	Participants	Duration
1	Billing Processes - Practical Application & Structured Practice Time	All users expected to process billing who may benefit from additional scheduled practice time under the guidance of a training specialist.	6 days
2	Cash Processes - Practical Application & Structured Practice Time	All users expected to process cash that may benefit from additional scheduled practice time under the guidance of a training specialist.	4 days
3	Customer Service Processes - Practical Application & Structured Practice Time	All users expected to process daily customer service functions who may benefit from additional scheduled practice time under the guidance of a training specialist.	6 days

**ADVANCED  
UTILITY SYSTEMS**

Sequence Number	Training Module	Participants	Duration
4	Collection Processes - Practical Application & Structured Practice Time	All collections staff who may benefit from additional scheduled practice time under the guidance of a training specialist.	6 days
5	Managing Service Orders - Practical Application & Structured Practice Time	All users expected to manage service orders who may benefit from additional scheduled practice time under the guidance of a training specialist.	4 days
6	Hard Parallel	All Staff as they parallel their normal functions on both systems and encounter questions	5 days
7	Live Week / Post Live Week	All Staff as they process their normal functions during the first week of live and encounter questions	5 days
<b>Total On the Job Learning Days</b>			<b>36</b>

**Summary of Training Days**

Advanced Provided Training	Days
Total Core Team and Trainer Classroom Training Days	22 days
Web Conference and/or Remote Assistance	36 days
<b>Total Days</b>	<b>58 days</b>

Type of Training	Days
Total Client Provided End User Classroom Training Days	74 days
<b>Total Days</b>	<b>74 days</b>

## 6.9 Vendor Questionnaire - Training Form

1.	What is your recommended approach to training (End-user vs. train the trainer), for this City of Columbia, and why?
	Based on our experience we recommend an end user trainer approach or a co-trainer approach whereby Advanced and the City jointly train the end users. The train the trainer approach requires that the City trainers have experienced trainers and that they are fully conversant in CIS Infinity in a short period of time. Our trainers bring the experience of having delivered the course material at many client sites.
2.	What types of training documentation will be developed by the Vendor?
	Advanced provides a complete set of Training Workbooks. These provide the additional benefit of giving users the opportunity to learn using the same documentation that they keep as reference material.
3.	What additional tools will be used in developing the training material?
	All of our training materials are fully developed and complete. The training materials consist of comprehensive workbooks that include step by step instructions, screen prints and exercises. We also supplement these documents with quizzes, exercises, learning games PowerPoint and other presentations to engage students and test their retention.
4.	Describe the opportunities for ongoing training.
	Advanced provides e-learning training courses all year round for any new client employees. These classes can also be taken by existing clients as refreshers.
5.	Describe the Vendor's ability to provide online training versus classroom training.
	Advanced has the ability to provide both online and classroom training. For convenience, minimal disruption, and best results, CIS Infinity training will be conducted at your premises using your data during the implementation.

## 4.8 Change Management Approach

The City recognizes that a movement from the current environment to a new solution will present change management challenges. The Vendor should clearly identify their approach towards Change Management including any unique approaches or tools that will be used.

Advanced will provide the City with a Change Management Plan. It is created to assist the City in having a successful adoption of CIS Infinity by their staff. This Plan will include internal communication strategies on the part of the City (e.g., staff newsletters). It will also include more in-depth strategies on how to include end users in significant enough exposure to the system to reduce overall strain and increase the chances of successfully using the software at Go-Live.

There will be several methods through which change management will be addressed during the implementation project. In all cases, communication should be direct, honest, reliable, and timely. Where possible, employees should be actively involved in change procedures to further encourage adoption of the new system.

Areas of change management:

- Internal and external communication
- Discovery workshops
- Training
- Testing.

### 1. Internal and External Communications

The purpose of maintaining communication with all stakeholders is to keep everyone informed about the status of the project, to address concerns, and to encourage feedback in order to stay aware of the environment within the organization.

Early in the implementation process Harris will gain buy-in for the solution and help alleviate employee concerns regarding job security and function.

Advanced can promote buy-in through a variety of means:

- Lunch and Learn sessions to introduce the Advanced solution to a larger audience
- Executive sessions to gain buy-in at the executive management level
- Distribution of project schedules in an easy-to-read calendar format to help users understand what is going on

Communications will also come in part from the City's Core Team for the project. Internal communications should be directed to both the management levels and the end user levels in the organization. External communications to the City's customers and community contain information coming from the Core Team but frequently involve resources and departments external to the span of control for the Core Team. A matrix will contain the different types of communication, who owns them and their frequency.

## **2. Discovery Workshops**

The Discovery Workshops enable the City to determine their new, best practice business processes through the Advanced Solution. Significant organizational changes come from the development of new processes. Documenting those changes and communicating them clearly is critical to the successful adoption of the new processes by all of the users.

There are several items to address in the Discovery process relative to Change Management:

**a. Involve SMEs in addition to the Core Team:**

- Involving SMEs in the workshops will provide important additional input to ensure that the processes are complete.
- The SMEs will have more buy-in if they are offered a more involved role earlier in the project, rather than presented with a final product.
- Choosing SMEs who are leaders within the organization, and engendering their buy-in, will help disseminate buy-in with the other end users throughout the organization.

**b. Document New Business Process Flows and communicate them:**

- Use existing process flows as a reference point and a tool to improve communication in the workshops.
- The Discovery deliverable is a document containing clearly organized business process information for using Infinity. The more clearly the new processes are understood and communicated, the fewer negative and uncertain feelings will pervade the Client environment.

**c. Document key Business Process Flow changes and communicate them:**

- Focus should be on the changes that are significant to process path or ownership of parts of the process.
- Getting SME and end user involvement in dissemination of key process change information will help with understanding the coming changes and reducing stress from the unknown.

**d. Plan for transitions in process changes:**

- As preparation for customizing end user training materials, have Core Team, SMEs, and end users work together to develop plans for change in the process.

**e. Use these inputs to create robust, easy to understand End User Training:**

- It is critical that End User Training not be created in a vacuum as 'New Process.' The key process changes and references to current process should be included to make the transfer of knowledge easier to grasp and more relevant to the end users.

### **3. Training**

To ensure that the Client's team members are getting the right level of knowledge given their use of the system, Training needs to be tailored to their specific needs. There should be an assessment of which team members need general knowledge of the system and those who need a deeper understanding of certain subject areas. This information can be tracked in a matrix with users and their required subject area training; this can then be used as input into the Training agenda.

Evaluations – self and by the trainer – should also be completed to confirm that the employees involved have received adequate training to be confident in their subject areas.

In addition to classroom training, there should be on the job learning in the form of participating in system testing (see below).

### **4. Testing**

Testing is a critical area in which a Client can positively impact Change Management. To have strictly classroom learning is not enough exposure to repeated use of the system and processes to build confidence in the users before go live.



## **4.9 Testing**

The Vendor should describe their recommended approach to the following types of testing that are anticipated to be performed on the project and the type of assistance they anticipate providing to the City of Columbia related to such testing:

- a. System testing**
- b. Integration testing**
- c. Stress/performance testing**
- d. User acceptance testing (UAT)**

There will be four phases in the overall testing approach during the implementation Functional Testing, Integration Testing, Stress Testing and User Acceptance Testing. There will be test generic scripts provided for each of these phases to provide some guidance for test script creation by the client. The test scripts will be driven by the business process flows that are documented during the Discovery process.

The progress of all four Test Plan phases will be tracked in a Test Matrix. The Test Matrix is critical to ensuring that no phase of the testing is behind schedule and will cause a delay to project go-live. The Test Matrix will contain:

- the test scripts for each phase
- who will test the scripts and what their role is in the City
- when the script is scheduled to be tested
- a status column stating when the testing on the script has been started, if a problem is found, and when the script has been successfully tested.
- Introduce Issue Tracking tool and how that will be used

### **Test Control Procedures**

A defect is any occurrence of an actual result being different from the expected result of a test. A defect must behave contrary to a documented feature of the system, either in the functional modification specification (Custom Defect) or in the User Documentation (Base Defect).

Any defects found will be reported to the development team via CustomerWise.

Defects will be categorized using the following priority criteria. This will help determine priorities.

<b>Severity Level</b>	<b>Assignment Criteria</b>
High Level 1 Defect	A Level 1 defect indicates a complete system crash or failure requiring a re-boot of the operating system. No workaround is available. Testing cannot proceed.
Medium Level 2 Defect	A Level 2 defect indicates that the code functionally failed to produce the expected results. A workaround is available.
Low Level 3 Defect	A Level 3 defect is cosmetic or a deviation from standards. The discrepancy is minor and can be delayed until some future date.

Defect fixes will always be carried out in the development environment and promoted to test environment for re-testing and acceptance.

### **1. Functional Testing**

Functional testing is primarily testing base functionality with the City's first cut of converted data and custom configuration.

### **2. Integration Testing**

The City will have a number of Interfaces that will require the development of either a one-way or two-way interface between the new applications and other applications. These interfaces will ultimately be delivered into an integration testing environment.

### **3. Stress Testing**

Stress testing ensures that the database servers have been configured according to data volume requirements and that response time performance meets the City's requirements. The product volume test is to insure batch and on-line performance meets performance and service levels.

### **4. User Acceptance Testing**

UAT is the process of testing integrated hardware and software systems along with a new set of converted data to verify that the systems meet the specified requirements.

## **4.10 Operational Redesign**

**With the deployment of a new application, the City of Columbia wishes to take advantage of capabilities within the software that provide support for process improvements. Vendors are requested to describe their approach towards process redesign including discussion on the optimal time in which to conduct redesign as it relates to implementation of the new software.**

**In addition, please describe your organization's capabilities to assist in a City of Columbia-wide redesign of the chart of accounts to best leverage the capabilities of the system in order to meet the City of Columbia's overall financial tracking and reporting objectives.**

The Discovery workshops occur before Core Team Training. This process involves a series of workshops whereby Advanced gathers detailed business rules and operational information from the client that provides a starting point for system configuration. The functional areas and interfaces that are examined are those identified in the Project Initiation Phase. There are several weeks of Discovery workshops; they are conducted as a two-person team, on site, to fully evaluate the existing and the 'to-be' business processes for the City.

Discovery workshops enable the City to determine their new, best practice business processes through CIS Infinity. Significant organizational changes come from the development of new processes. Documenting those changes and communicating them clearly is critical to the successful adoption of the new processes by all of the users.

During the Discovery process, new business process flows will be documented using existing workflows as a reference point and a tool to improve communication in the workshops.

The Functional and Data Conversion Discovery will be led by Advanced and broken out into functional and data conversion workshops. The workshops review the functional and data conversion areas of the system and are the basis for how Advanced will configure, and convert all of the required business functions, business logic and data in the system.

The Functional Discovery Analysis Workshops will be led by Advanced to appropriately review and confirm all required information for these areas.

In addition to Functional Discovery Analysis Workshops, Advanced will conduct a remote or onsite Data Conversion Discovery Analysis Workshop. Advanced will work with the City to determine how to convert the existing legacy data into CIS Infinity. A full explanation of the process and definition of standard data validation parameters, as well as any site-specific data validation parameters will be reviewed and adopted. Data validation criteria and a data map are presented and reviewed jointly by Advanced and the City.

Advanced will also conduct a remote or onsite Interface/Modification Discovery Analysis Workshop. Advanced will provide an agenda as well as identify and review with the City all interfaces and modifications to be programmed in CIS Infinity. Advanced will review the

specification process and map out the timeline required to complete the specifications, coding, Q/A, deployment, and testing.

The minimum topics that will be covered include the following:

- Data source(s) identification; obtain data dictionaries, table relationships, etc.
- Method of moving the data between databases, including the format the data might be in, during the move (e.g., XML, ASCII, staging tables, DTS, etc.)
- Direction of dataflow and frequency of data exchange
- Data validation efforts needed, if any
- Error handling
- Document data mapping from one database to another
- Requirements analysis

For each workshop, Advanced will identify the City staff needed to attend two weeks in advance.

The primary outcome of the workshops is the Discovery document that will serve as the central repository for all findings in the discovery process. This will also provide an initial association between the client's business practices and the required configurations.

Consequently, the discovery document will be referred to throughout the life of the implementation project.

Through the Discovery phase of the project, the Discovery document will be used to track both verbal and written information, and serve as the central map to other critical utility information.

The Discovery Document will include, at a minimum, the following functional areas:

**1. Foundation**

Review of all of the basic system set up areas and logical business rules including but not limited to account types, services, account number structure and customer number structure.

**2. Customer Account Inquiry**

Review of addresses and phone numbers, lookups and address and occupancy types.

**3. Meters and Meter Inventory**

Review of meter types, meter inventory process and controls, manufacturers, units and other pertinent meter information.

**4. Billing**

Review of the entire meter reading to billing process with a review of all processing and exceptions reporting.

**5. Bill Print**

Review of all bill print types and notices and review of how the bill printing and bill re-print functions are handled through to the mailing process.

**6. Rates**

Review of the rate tariff and functional requirements for setting up rates, seasonal rates, temporary rates, proration, taxes and any rate rebates or discounts.

**7. Cashiering**

Review of all payment types, interfaces, ACH, endorsements, receipts and unapplied payments processing.

**8. Collections**

Review of all collections procedures, payment arrangements, exemptions, penalties, notices, disconnections, agency, add to tax/liens, tax certification, bankruptcy and write-off processes including all applicable fees.

**9. Move in Move Out**

Review of the process flow and all applicable setups, fees and follow up processes with the move in move out process.

**10. Customer Service**

Review of functions within the software such as new service creation, donation plans, discounts and special service offerings/community service functions.

**11. Accounting**

Review of GL Setup and chart of accounts for GL/AP processing and refunds processing.

**12. Service Orders**

Review of requirements for full service order processing and follow up actions control.

**13. General**

Review of other functions within the system that address miscellaneous concerns, user defined fields and additional control forms.

**14. Reporting**

Review of reporting requirements to establish expectations on what reports will be required within CIS Infinity and in what type of preferred format. The discussion will include searches, querying, and a review of CIS Infinity's canned reports. At the conclusion of this discussion Advanced will outline all the required base reports (auditor's, rates, revenue, cash, and others as needed) in a Reporting Matrix.

From the Data Conversion Discovery Analysis Workshop Advanced will produce a Data Conversion Plan which will include a data mapping document and data validation parameters.

Advanced will also produce a Functional Specification Document and Technical Specification Document for all Interfaces and Modifications for review and acceptance by the City.

Each specification will outline the following:

- Document Overview
- Revision History
- Functional/Technical (as appropriate) Summary
- Process Overview
- Functional/Technical (as appropriate) Enhancement
- Impact to System Operation
- Questions

Advanced will conduct a review of the documentation with the City remotely to make any changes to the specifications.

## **4.11 System Documentation and Manuals**

The Vendor is expected to provide user manuals and online help for use by the City of Columbia as part of the initial training and on-going operational support. Additionally, the Vendor is expected to provide technical documentation.

**1. Describe what documentation (user guide, technical guide, training materials, etc.) is available on the system proposed and any related costs.**

The following documentation is included as part of the implementation:

To help end-users learn and retain knowledge the applications include a complete **Online Help** system.

With each new release, and periodically between releases, an updated online help system with clear, accessible instructions for using new features and enhancements is provided. Advanced develops documentation from the perspective of the end-user, basing it on the tasks users perform each day (not just descriptions of the end-user interface).

Advanced also provides a complete set of **Training Workbooks**. These provide the additional benefit of giving users the opportunity to learn using the same documentation that they keep as reference material.

Advanced technical documentation includes Entity Relationship Diagrams and a Data Dictionary, which form an important part of the Advanced plan for increased interoperability and extensibility. Examples appear below.

**2. Describe what types of documentation you anticipate developing during the course of the project.**

Several project planning documents are developed as a part of this effort, including the following:

- **Project Plan**  
Illustrates implementation timeline and methodology
- **Discovery Document**  
Captures all learning and understanding gained in the Discovery Workshops.  
Document will serve as a template for configuring the Software.
- **Risk Plan**  
Includes descriptions of how the risks will be/were determined, including planning methodology, assumptions and decisions.
- **Conversion Plan**  
A jointly developed plan that defines detailed processes and tools that will be utilized for the conversion. The plan will include data mapping, legacy data quality assessment, data cleansing, technical design, development and testing.
- **Test Plan**

This plan defines the success criteria, goals, objectives, and scope of testing, inclusive of resources roles, and responsibilities, test environment/instance management. This document outlines the plan for testing, specific scripts and expected results and includes agreed upon pass/fail acceptance criteria.

- **Training Plan**

Documents how users will be trained taking into consideration the software configuration completed as a result of the Functional Discovery Analysis.

- **Communication Plan**

Documents how the project ensures timely and appropriate generation, collection, dissemination, storage, and disposition of project information. It includes descriptions of how communication requirements will be/were determined and met, including any assumptions.

- **Change Order Plan**

Identifies how changes and their impact on the project will be identified, documented and communicate to the City.



## **4.12 Disaster Recovery Plan**

**Please describe the services you provide around disaster recovery, if any, as part of your proposed solution.**

Advanced recommends that our clients set up mirror environments for contingency purposes. Many of our clients have a test environment, a staging environment and a production environment for complete redundancy. There is no limit to the number of supporting environments that can be set up.

Advanced will also commit to working with the City to develop a robust Disaster Recovery Plan.

## **4.13 Knowledge Transfer**

**The Vendor should describe their process for ensuring that a transfer of knowledge occurs back to City of Columbia staff such that staff is capable of supporting and maintaining the application in the most proficient manner once the Vendor implementation engagement is complete.**

Training is most effective when it includes an assessment of learner progress. Advanced will include various assessment tools to ensure your staff is ready to move on to the next stage of implementation. Assessment of learning includes:

- Recall or recognition of specific information (Users are quizzed on course material.)
- Combining comprehension and application (Users are required to undertake tasks using CIS Infinity.)
- Problem solving through transferring existing knowledge and skills to a new situation (When introducing a new module our trainers have users apply previous experience of CIS Infinity to the new task.)

Our commitment to training and client support means that we do not leave until your staff has everything they need to do their jobs.

## 5 Staffing Plan

The City anticipates that there will be a 50% / 50% split between the level of effort provided by the Vendor and the City, as part of the implementation.

1. The Vendor must detail the type and amount of implementation support to be provided (e.g., number of personnel, level of personnel, time commitment, etc.). Include resumes for all personnel that will be assigned to the project. If the Vendor is using a subcontractor, please include information on subcontracting staff being used and their specific role on the project.

The CIS Infinity implementation team will include a Technical Lead, and a Conversion Specialist that will not change through the life of the project, unless the organization requests a change. Trainers are assigned based on their expertise in the areas being covered. If the organization would find it helpful, we would be happy to arrange interview sessions with personnel from Advanced so you may feel comfortable with the people being assigned to your project.

Since Advanced assembles its implementation teams based on the unique requirements of each project, we cannot predict which team members will staff your implementation until the onset of the project. We can, however provide you with resume profiles to illustrate what a typical team for a project of the City's size and scope would look like.

### **Matthew Rozek PMP** **Project Sponsor/Program Manager**

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#### **Professional Background**

Matthew has over ten years of experience in team and technology project management with a strong emphasis on PMI methodology. In his previous roles Matthew has managed global Professional Services teams for a technology company, acting as a program manager and project sponsor.

#### **Areas of Expertise**

Matthew has strong skills in the following areas:

- Project Management
- Resource scheduling and management
- Relationship building
- Change and Risk management
- Proven track of maintaining the highest customer satisfaction
- Ensuring constant alignment of the project deliverables with client's business needs
- Budget Preparation and submittal for Board Approval

#### **Experience**

- Successful management of all phases of concurrent

- complex technology projects
- Management and resource coordination of diverse project delivery teams
- Coordinated intradepartmental resource planning

**Education**

B.A. Sociology/Criminology  
University of Toronto

Diploma in Supporting Computer Systems  
Shaw College, Toronto

PMP Certification  
Obtained in 2008

Standing member of Professional Management Institute (PMI) since 2008

**Sue Martin**  
**Project Manager**

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**Professional Background**

As a Project Manager, Sue is responsible for the successful implementation of clients' customer information systems. She manages all steps of the project life cycle, working as a liaison between Advanced and client staff to complete successful projects. Sue has fiscal responsibility for the implementation of projects, maintains client and internal communications, and ensures timely completion of deliverables.

Previous to joining Advanced, Sue was employed by Enbridge Inc. in various operational capacities and Direct Energy in a senior management role head of Business Integration and Implementation. Sue most recently held her own operations consultancy firm specializing in process engineering. Sue brings over 20 years of experience in operations and customer service management, 10 of which were utility based.

**Areas of Expertise**

Sue has strong skills in the following areas:

**Project Management**

- Successfully managed all aspects of utility industry software implementation projects including project scope, budget, invoicing, resources, risk analysis,

timeline, communication, issue resolution, software development, system testing, documentation, training, data conversion and analysis, and assessment of overall project health and performance.

**Operations Management**

- Have several years of experience in various utility and home services operations management including: meter reading, sales, service, installation, billing, workload planning, reconciliation, logistics, customer service and IT support.

**Business Relationship Management**

- Successfully managed relationships with both internal and external clients, teams, business partners, and vendors.

**Experience**

As a member of the Professional Services team at Advanced, Sue has successfully implemented CIS Infinity, Infinity.Link and Infinity.Mobile in the past year for the following clients: Manitowoc, Wisconsin, Lee's Summit, Missouri and McAllen, Texas. She also had several CIS Infinity Version 3 upgrades taken live.

**Education**

**Certified Business Analyst**

York University, Schulich School of Business

**Six Sigma Green Belt Certification**

Toronto, ON

**Diploma, Recreation Leadership Management**

Centennial College, Toronto, ON

**Previous Work Experience**

**Smartin-Op Consulting**

*Owner and CEO*

- Assisted small to medium sized businesses in designing and improving their operational processes

**Direct Energy**

Senior Manager, Business Integration and Implementation

- Managed a team of business analysts and project managers in the Home Services division
- Designed and delivered numerous projects aligned to the organization's growth and process

improvement strategies.

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**Chris Davy**  
**Application Consultant**

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**Professional Background**

Chris' role as an Application Consultant has involved assisting clients with the configuration, implementation, testing and optimization of Advanced solutions at client sites. Chris is also heavily involved in documenting system requirements and specifications.

Previous to joining Advanced, Chris was employed in various Brookfield companies, developing from an IT support position into management. He brings with him over 12 years of experience in software development/implementation, process analysis, and customer support.

**Areas of Expertise**

Chris has strong skills in the following areas:

**Information Technology Implementations**

- Successfully managed and implemented numerous internal/ enterprise wide initiatives

**Billing Database Solutions**

- Extensive database development/management experience with billing systems and their integration into financial systems for some of North America's largest real estate brands

**Requirements Gathering**

- Designed, built and implemented software and project plans for various organizations.

**Experience**

**County of Ventura, CA**

- Working as a technical lead for the County of Ventura's implementation

**South Norwalk Electric & Water Works, CT**

- Combined two separate instances of CIS Infinity into a single system

**Wallingford, CT**

- Assisted in creating a custom application to integrate/convert meter information within CIS Infinity

**Education**

**Business Analysis - Requirements Development, Documentation and Management**

Nexient, Toronto, Ontario

**MSTC: SQL Server 2005**

Global Knowledge, Toronto, Ontario

**Microsoft Certified Technology Specialist (MSTC)**

Global Knowledge, Toronto, Ontario

**ITIL Foundations Certification**

Loyalist College, Toronto, Ontario

**Advanced Web Development for E-Business**

Humber College, Toronto, Ontario

**Advanced Computer Science and Technology**

Langara College, Vancouver, British Columbia

**Previous Work Experience**

**Brookfield Residential Property Services**

*Manager, Internal Support*

- Responsible for managing the Internal Support department as well as overseeing project management, implementation and support for all BRPS Internal Support products.

**Serge Taliansky**  
**Technical Lead**

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**Professional Background**

In his role as an Implementation Specialist, Serge has been involved in several aspects of implementation. He has helped set up rates and transaction codes, making the necessary changes to the appropriate control forms in the system. He worked on setting up G/L Numbers, adding and changing records in multiple tables. He has been in a number of other setups including tax codes and meter instructions/locations, as well as contributing to some documentation involving the system.

Prior to joining Advanced Utility Systems, Serge had firsthand experience with utilities as an end user. Having been employed by Optima Communications and doing work for a large electricity utility client (Toronto Hydro Electric System Ltd.), he has been involved in the roll-out of a new billing system for the electricity utility, where Serge has been helpful in clarifying procedures and capabilities of the new system, as well as suggesting areas for improvement.

Serge has also been working with a team of employees ensuring proper usage of the system, and provided explanations as required.

**Areas of Expertise**

Serge has strong skills in the following areas:

**Business Processes**

- Having formerly worked for a utility, Serge has a great understanding of the daily operations of a utility.

**Customer Service**

- Through acquiring experience communicating with customers on the phone and in person, Serge learned to build rapport with clients, tend to their needs and priorities, and provide excellent service.

**Experience**

Serge's work at Advanced Utility Systems has involved providing assistance with the following clients:

- Boise
- Manitowoc Public Utilities
- City of McAllen
- Warren County
- Western Municipal Water District

**Education**

**Computer Programming & Analysis**  
**Seneca College**

**Previous Work Experience**

**Optima Communications– June 2010 – May 2011**

**Customer Service/Product Specialist**

- Managed a team of 10-16 agents, working as a specialist, supervisor and team manager
- Successfully performed account investigations and adjustments for various services including electricity utility Toronto Hydro Electric System Ltd.
- Solved hardware/software and other functionality related situations utilizing analytical thinking

**Optima Communications - July 2009 - June 2010**

**Escalation Team/Customer Service Agent**

- Displayed and utilized thorough knowledge of various billing infrastructures
- Demonstrated ability to communicate ideas accurately and expedite troubleshooting procedures

**Simpro Solutions – February 2009 – July 2009**

**Customer Activation/Support Agent**

- Answered inbound calls from customers regarding telephone and hi-speed internet service
- Kept logs and submitted daily reports on service functionality and recurring issues

**STARLIMS – October 2008 – February 2009**



**Junior Developer**

- Developed web-based applications for microchip company (CHIPWORKS) based on tasks presented by client
- Attended client business meeting discussing database structure and requirements for project

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**Daniel Wallace**  
**Data Conversion Specialist**

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**Professional Background**

Daniel designs and executes conversions for clients. He has worked with systems ranging in size from 45,000 to 100,000 accounts.

Daniel has also been successful in working with clients to address any technical issues that arise during implementation. He has developed a strong knowledge of the CIS Infinity system and its backend database.

**Areas of Expertise**

Daniel has strong skills in the following areas:

**T-SQL Scripting**

- Has written numerous T-SQL Functions and Stored Procedures for use in data conversion and transformation

**SSIS**

- Designed and created SSIS packages to convert data from legacy systems

**Data Mapping and Planning**

- Implemented the data mapping process for numerous clients in order to properly plan out the conversion during data discovery

**Experience**

**City of Sioux Falls, SD**

- Assisted in data mapping and designed the data conversion program. Executed and balanced each conversion for a successful implementation

**Saint Paul Regional Water Services, MN**

- Redesigned large sections of the conversion to meet the client's specific needs, resulting in a successful implementation and conversion of nearly 100,000 accounts

**Western Municipal Water District, CA**

- Assisted in data mapping and designed the data conversion program. Executed and balanced each conversion for a successful implementation

**Education**

**Computer Programmer**  
Durham College, Oshawa, ON

**Previous Work Experience**

**Advanced Utility Systems**  
**Data Conversion Specialist**

- In his position as Data Conversion Specialist, he is responsible for the successful conversion of legacy systems to CIS Infinity. He is also involved in the data mapping, planning and design of the conversion program. Additionally, he handles any data issues that may arise during the implementation process.

**Virginia Moraru**  
**Development Lead**

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**Professional Background**

Virginia has over ten years of experience with requirements gathering, analysis, specifications, documentation, development, programming and managing when it comes to modifications and interfaces for CIS Infinity and Advanced's other solutions. She focuses on understanding both a client's functional needs as well as their technical environment to ensure that a delivered integration solution is functionally robust, user-friendly and technically solid.

**Areas of Expertise**

**Requirements Analysis**

- Virginia has a detailed knowledge of the functionality and capabilities of CIS Infinity. This product knowledge enables in-depth analysis of the best approach for enhancing product capabilities and interfacing with other applications.

**Communication**

- Virginia has good written and oral communication skills. She is able to translate complex technical requirements into user-friendly language for development of client specifications and for client roll outs of enhancements. This also enables her to effectively coordinate internal development efforts of the product development team.

**Experience**

**Chugach Electric Association, AK**

- Requirements gathering, specifications, development and rollout for modifications and

interfaces

**Chesterfield County, VA**

- Requirements gathering, specifications, development and rollout for modifications and interfaces, including NCO Collection Agency Interface, Hansen Work Order Interface, Cash One Remittance processor, Water Leak Adjustment and Billing/Collections Calendar

**Saint Paul Regional Water Services, MN**

- Development and internal rollout for modifications and interfaces, including major functionality enhancements to actions, notes and service orders, and integrations such as Oracle CMMS, GIS, IVR, Tax Assessors and AMANDA permitting.

**Education**

**MS in Computer Science**

Bucharest Polytechnic University

**Previous Work Experience**

**National Board of Statistics**

*Software Developer*

- As Software Developer, Virginia was responsible for implementing Energy's Statistical data system used for collecting statistical information on energy consumption from all the division, verifying the data integrity, processing the data and preparing selective reports on a monthly basis.

**Paul Guitard**  
**Training Specialist**

---

**Professional Background**

In Paul's role as a Training Specialist, he delivers elemental classes to clients and fast tracks them to hands-on proficiency with the Advanced solutions CIS Infinity and add-on solutions. Paul also assists clients with their implementations, testing and optimizing their system to meet their needs.

**Areas of Expertise**

Paul has considerable skills in the following areas:

**Training**

- Conducting instructor-led training to core team and end users alike
- Developing courseware for various modules

**eLearning**

- Conducting remote training using teleconferencing products such as WebEx, OCS and GoToMeeting
- Enhancement training for clients upgrading to latest software revision

**Problem Resolution**

- Assisting clients with their process review
- Recommending solutions for improving system performance
- Framing client interests for technical support team

**Experience**

**City of Santa Rosa, CA**

- Trained all core team and end users on the use of CIS Infinity ensuring knowledge transfer
- Conducted "at the elbow" process review
- Onsite presence for parallel process refinement
- Assisted in taking this client live

**Saint Paul Regional Water Services, MN**

- Trained all core team and end users on the use of CIS Infinity and Infinity.Link ensuring complete knowledge transfer
- Completed "at the elbow" process review

**Education**

**Certificate of LAN and Business Applications**

CDI College, Toronto, 1994

**Previous Work Experience**

**Contract Software Trainer**

- Delivered day courses in Microsoft Office applications and Lotus Notes to corporate clients with ctc TrainCanada and Prism Training Solutions.

**Canada Mortgage and Housing Corporation**

*Lotus Notes Trainer*

- Developed and delivered instructor-led training for Microsoft Office, Lotus Notes and SmartSuite applications
- Mentored and coached staff members to use the Lotus Notes databases as information and record repositories
- Developed and circulated weekly timesaving tips for using Lotus Notes more efficiently

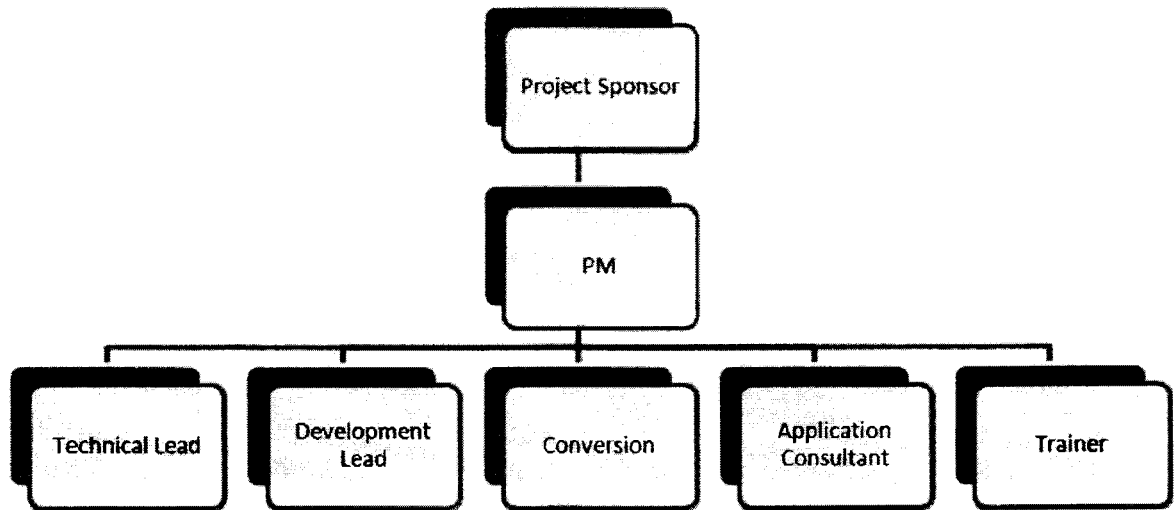
**Computer City (A Future Shop Company)**

*Corporate Software Trainer*

- Instructed corporate clients in Microsoft Office 2000 applications, Microsoft Project '98 and Lotus Notes R5.

2. Please provide an overall project organizational structure for City of Columbia staff involvement during the project (for both a City of Columbia-hosted and Vendor-hosted solution). Identify the roles and responsibilities of each component of this structure. This includes an appropriate governance structure in which to manage the project.

**Advanced's Proposed Implementation Team Organizational Chart**



**Roles and Responsibilities**

The table below details the structure of the joint implementation team (by company) and identifies specific project roles and responsibilities. Advanced has employed this team structure at numerous client implementations with great success.

<b>Advanced Team</b>	
<b>Role</b>	<b>Responsibilities</b>
<b>Project Sponsor</b>	<ul style="list-style-type: none"> <li>Steer project</li> <li>Serve as project champion</li> <li>Resolve major project issues</li> </ul>
<b>Project Manager</b>	<ul style="list-style-type: none"> <li>Plan project approach, timetable, priorities, and resources.</li> <li>Coordinate Advanced resources.</li> <li>Lead workshops and interviews, perform business analysis and design Advanced Solution</li> <li>Evaluate best practices and identify operational improvements.</li> <li>Produce project implementation</li> </ul>

	<p>documentation.</p> <ul style="list-style-type: none"> <li>• Act as a liaison between Advanced and the City's implementation teams.</li> <li>• Monitor project status and communicate issues and risks to the project team and steering committee for resolution.</li> <li>• Document the City's business processes and procedures, and coordinate delivery of training</li> <li>• Support the City with acceptance testing</li> </ul>
<b>Conversion Specialist</b>	<ul style="list-style-type: none"> <li>• Assess the City's needs and review condition of existing data.</li> <li>• Assess the City's data conversion requirements.</li> <li>• Plan data extraction and conversion approach</li> <li>• Map data from existing CIS solution to CIS Infinity.</li> <li>• Develop data conversion routines and set up control files to reflect defined requirements.</li> <li>• Monitor data testing activities, identify and correct issues, and modify testing routines as required.</li> <li>• Oversee final data acceptance.</li> </ul>
<b>Technical Lead Application Consultant</b>	<ul style="list-style-type: none"> <li>• Prepare technical environment</li> <li>• Install and test CIS Infinity</li> <li>• Oversee the set-up of control files and create processes within CIS Infinity</li> <li>• Work with the City's team to evaluate best practices and identify process improvements with assistance of Project Manager.</li> <li>• Document processes and procedures.</li> <li>• Identify and communicate business issues to the City's implementation team.</li> <li>• Assist in system testing and overall quality assurance</li> <li>• Advise testers of work required, sign-off procedures and timing</li> <li>• Lead technical training of the City's core implementation team</li> </ul>
<b>Interface Expert</b>	<ul style="list-style-type: none"> <li>• Work with the City's interface experts to determine interface requirements, set-up issues and timing.</li> <li>• Work with Advanced software developers to develop interface.</li> <li>• Set-up interface.</li> </ul>

	<ul style="list-style-type: none"> <li>• Coordinate testing of completed interfaces.</li> <li>• Ensure data sharing is optimized.</li> </ul>
<b>Training Specialists</b>	<ul style="list-style-type: none"> <li>• Create training plan and collect necessary approvals.</li> <li>• Provide training documentation as needed, customized where possible.</li> <li>• Lead training sessions</li> <li>• Provide one-to-one assistance in system operation.</li> </ul>
<b>Software Developers</b>	<ul style="list-style-type: none"> <li>• Program modifications and customizations as identified in the contract and project plan, or through change orders.</li> <li>• Test modifications and changes.</li> </ul>
<b>City of Columbia's Team</b>	
<b>Role</b>	<b>Responsibilities</b>
<b>Project Sponsors (Includes Dir. Customer Service, Dir. Utilities, Dir. Finance)</b>	<ul style="list-style-type: none"> <li>• Steer project</li> <li>• Serve as project champion</li> <li>• Resolve major project issues</li> </ul>
<b>Project Manager</b>	<ul style="list-style-type: none"> <li>• Plan project approach, timetable, priorities, and resources.</li> <li>• Coordinate resources and internal activities required to deploy system.</li> <li>• Report project status to steering committee; identify changes in project and scheduling.</li> <li>• Act as a liaison between implementation team, and Advanced.</li> <li>• Review processes and reengineer.</li> <li>• Oversee project communications at the City</li> </ul>
<b>Senior Conversion Expert</b>	<ul style="list-style-type: none"> <li>• Determine data requirements and document</li> <li>• Extract data from existing CIS solution</li> <li>• Assist Advanced to ensure the data mapped into CIS Infinity is complete and accurate</li> <li>• Identify and correct data conversion issues</li> <li>• Oversee final data acceptance</li> </ul>
<b>Senior Analyst</b>	<ul style="list-style-type: none"> <li>• Work with Advanced to evaluate processes and make necessary modifications.</li> <li>• Identify and document existing processes impacted by CIS Infinity implementation</li> <li>• Lead set-up of control files</li> <li>• Assist project manager in project management in areas such as scheduling</li> <li>• Communicate business issues to the Advanced implementation team</li> </ul>
<b>Interface Expert</b>	<ul style="list-style-type: none"> <li>• Work with Advanced specialists to determine</li> </ul>

	<p>interface requirements, work effort, and scheduling of interface development.</p> <ul style="list-style-type: none"> <li>• Develop interface specifications</li> <li>• Coordinate all testing of completed interfaces</li> <li>• Ensure data sharing is optimized</li> </ul>
<b>System Testers</b>	<ul style="list-style-type: none"> <li>• Test critical system functions in different environments.</li> <li>• Document existing processes and expected results</li> <li>• Use CustomerWise software to log errors and omissions</li> <li>• Sign-off on each software modules once accepted</li> </ul>
<b>System Administrator</b>	<ul style="list-style-type: none"> <li>• Ensure server and desktop hardware is available, tested, and operational.</li> <li>• Assist Advanced with system configuration.</li> <li>• Perform administrative functions - e.g. preparation of training rooms</li> <li>• Troubleshoot network, hardware and other system problems</li> </ul>

In addition to providing responses to the above items, the Vendor must complete the **Staffing Plan Form** in **section 6.10** of this RFP and include it in this section of the response.



## 6.10 Vendor Questionnaire - Staffing Plan Form

1.	Identify the degree to which Vendor staff will be onsite versus off-site during the project.																														
	The vendor can spend about 30% of the total project time on-site. Can vary depending on client's need and travel budget.																														
2.	Use the table provided below to identify the number of City of Columbia business staff expected to be committed to the project implementation. Initial identification of project roles has been provided but should be supplemented or revised by Vendors based on their experience in implementing their product in similar environments.																														
	<table border="1"> <thead> <tr> <th>Project Role</th> <th>Project Responsibilities</th> <th>FTE</th> </tr> </thead> <tbody> <tr> <td>Executive Sponsor(s)</td> <td>Oversee project financial and critical issues</td> <td>.01</td> </tr> <tr> <td>Project Manager</td> <td>Oversee daily project activities and plan City staff project needs and resolve issues</td> <td>.75</td> </tr> <tr> <td>Project Administrator</td> <td>Maintain documents and coordinate testing and training</td> <td>.10</td> </tr> <tr> <td>Functional Process Owners</td> <td>Supply assistance in defining business process. Identify test cases and validate results.</td> <td>.60</td> </tr> <tr> <td>Functional Process Team Participants (per member involvement)</td> <td>Supply assistance in defining business process in respective area. Identify test cases and validate results</td> <td>.5</td> </tr> <tr> <td>Change Management Team Lead</td> <td>Identify internal and external communication</td> <td>.1</td> </tr> <tr> <td>Testers by functional area</td> <td>Create, Test &amp; validate test cases</td> <td>.5 during testing</td> </tr> </tbody> </table>	Project Role	Project Responsibilities	FTE	Executive Sponsor(s)	Oversee project financial and critical issues	.01	Project Manager	Oversee daily project activities and plan City staff project needs and resolve issues	.75	Project Administrator	Maintain documents and coordinate testing and training	.10	Functional Process Owners	Supply assistance in defining business process. Identify test cases and validate results.	.60	Functional Process Team Participants (per member involvement)	Supply assistance in defining business process in respective area. Identify test cases and validate results	.5	Change Management Team Lead	Identify internal and external communication	.1	Testers by functional area	Create, Test & validate test cases	.5 during testing						
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Project Role	# of FTEs	Skill Set Required	Training Required?	Training Provided?																											
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Report Developer	.1	Crystal	No	Yes																											
System Administrator	.01	As per your current systems	No	No																											
Security Administrator	.01	As per your current systems	No	No																											

## 6 Ongoing Support Services

In addition to providing responses to the following items, the Vendor must complete the **Ongoing Support Services Form** in section 6.11 of this RFP, and include it in this section of the response.

**1. Please specify the nature and conditions of any post-implementation support options including:**

**a. Post-go live support that is included in the proposal response**

A post-live strategy will be developed during the project. This will include any outstanding implementation issues. This will also include post-live training necessary on any re-designed or new processes that are necessary.

Advanced will re-visit and be on site for the first billing with a Trainer and Implementation Specialist to ensure a smooth transition.

The Project Managers from both teams will monitor post live activities through the warranty period to ensure that all outstanding issues are addresses and to ensure that the transition to the new billing system runs smoothly.

In the proposal response we are including 3 weeks of post go-live support.

**b. Onsite support (e.g. system tuning, application configuration, interface issues, report development, network optimization, user training and tips to optimize the user experience)**

As part of the Customer Care Program, on-site visits are provided as required.

**c. Telephone support,**

Advanced provides one level of support which is 24 x 7 service through an emergency hotline. Normal hours of business are Monday to Friday 8:00 AM to 8:00 PM (EST). A toll free number is provided.

**d. Help Desk services (If there is a service level agreement for your help desk, please provide a copy with your RFP response.)**

Advanced has a Toronto-based Help Desk. It provides support services to clients across North America and the Caribbean. This relies heavily on on-line diagnosis, and servicing from remote sites.

Our service level agreement can be found on page 45 of our License and Maintenance agreement with is included under section 9.

**e. Toll-free support line**

Advanced clients have a variety of dependable, easy-to-use support options, including toll-free telephone support, 24 hours a day and 7 days a week.

**f. Users group (i.e. – information about it, where it is held and when. If no, are you planning one?)**

Advanced offers an annual Customer Conference. The conference offers attendees a unique opportunity to view our applications and gain even greater value from our solutions. This is an excellent opportunity to meet and network with other customers to exchange ideas, solutions and best practices.

The 2013 conference will include many in-depth, informative sessions and our experienced Support Professionals will be on hand to provide one-on-one assistance at our Support Center. The Partner Showcase will provide our customers with a chance to find out about different products and services offered and how they might benefit their respective organizations.

In addition CIS Infinity has user groups that are independently run, volunteer groups that meet in-person on a regular basis to discuss and share information.

The CIS Infinity Users Groups are located in the following states and regions:

- Northeast
- Southeast
- Rocky Mountain (Denver)
- California
- Pacific User Group (PUG)
- Midwest
- Backflow User Group
- Gas User Group

Each group meets locally and Advanced is often in attendance. Each user group meets twice a year.

**g. Online knowledgebase (i.e. – how it is accesses, who updates it, etc.)**

To help end-users learn and retain knowledge about CIS Infinity, the application includes a complete **Online Help** system.

With each new release, and periodically between releases, Advanced provides an updated online help system with clear, accessible instructions for using new features and enhancements. Advanced develops documentation from the perspective of the end-user, basing it on the tasks users perform each day (not just descriptions of the end-user interface).

**2. Describe your maintenance programs and options with associated pricing.**

Advanced provides one level of support which is 24 x 7 service through an emergency hotline. Support and Maintenance Services is priced at 25% of the license and custom report costs as well as modification/interface costs.

The following list highlights what the support and maintenance program includes:

- Access to your own Support Web page.
- Access to Support Knowledge Base via the Web.
- Access to Frequently Asked Questions (FAQ's) page via the Web.
- Access to useful Advanced Searches via the Web.
- Access to Build Logs and Build Downloads via the Web.
- Access to the Support Department via the Web, e-mail, fax, and 1-800 (Support Hot Line).
- Cost effective upgrade solutions
- Scheduled assistance for installations, upgrades & other special projects (there may be charges depending on the scope of work)
- Technical troubleshooting & issue resolution
- E-mail support call logging and notification
- Free eSupport access 24 x 7 with the following on-line benefits:
  - Log & close calls
  - View & update calls
  - Update contact information
  - Access published documentation
  - Access available downloads
  - Access Support knowledge base
  - Participate in Discussion Forums
  - Report on metrics
- Standard software releases and updates
  - Defect corrections (as warranted)
  - Planned enhancements
  - State and/or Federal mandated changes (charges may exist depending on scope)
  - Payroll regulated changes
  - Participation in BETA program
  - Release notes
- Limited training questions (15 minute guideline)
- Customer Care Program
  - Quarterly Newsletter with support tips
  - Technical support bulletins
  - Communication on new products and services
  - On-site visits (as required)
- Design review for potential enhancements or custom modifications

**ADVANCED  
UTILITY SYSTEMS**

- Outstanding Calls Report with conference call (as required)
- Ability to attend the annual customer conference (attendance fees apply)
- Regular updates issued to users regarding the status of your support items and the option of having them posted on your Web page.

**3. Describe and provide pricing for any "software as a service" (SaaS) model that you offer (where there is no up-front license fee, but instead a monthly charge which may include maintenance).**

Advanced is not proposing SaaS.

**6.11 Vendor Questionnaire - Ongoing Support Services Form**

Support and Maintenance														
1.	Provide the minimum, maximum, and average response times (hours) provided as part of the basic support agreement and average response time for the past twelve (12) months.													
	<p>Response times fall under the following levels of time sensitivity:</p> <table border="1"> <thead> <tr> <th>Category</th> <th>Response Time</th> <th>Example(s)</th> </tr> </thead> <tbody> <tr> <td> <b>Priority 1</b>  <b>Urgent/High</b>  Items that impede the organization from doing business. </td> <td> 1 to 4 hours  <b>(Investigated and addressed immediately)</b> </td> <td> Unable to calculate bills; Unable to post cash; Unable to gain access to CIS Infinity </td> </tr> <tr> <td> <b>Priority 2</b>  <b>Medium</b>  Items that impact non-critical day to day processes. </td> <td>1 to 8 hours</td> <td> Inability to enter meter changes; Inability to process move in/move out. </td> </tr> <tr> <td> <b>Priority 3</b>  <b>Low</b>  Items that do not impact a user's ability to complete their daily tasks. </td> <td>1 to 24 hours</td> <td> Finding out the table name for transaction history. </td> </tr> </tbody> </table> <p>Response times to support items are written into the contract.</p>		Category	Response Time	Example(s)	<b>Priority 1</b> <b>Urgent/High</b> Items that impede the organization from doing business.	1 to 4 hours <b>(Investigated and addressed immediately)</b>	Unable to calculate bills; Unable to post cash; Unable to gain access to CIS Infinity	<b>Priority 2</b> <b>Medium</b> Items that impact non-critical day to day processes.	1 to 8 hours	Inability to enter meter changes; Inability to process move in/move out.	<b>Priority 3</b> <b>Low</b> Items that do not impact a user's ability to complete their daily tasks.	1 to 24 hours	Finding out the table name for transaction history.
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2.	Provide the average time to resolve/close registered incidents.													
	It is consistent with the response times outlined above for question 1.													
3.	Specify days and hours of help desk services.													

	Advanced Utility Systems has a Toronto-based Support Desk. Advanced provides one level of support which is 24 x 7 service through an emergency hotline. Normal hours of business are Monday to Friday 8:00 AM to 8:30 PM (EST). A toll free number is provided.																					
4.	Do you provide product upgrades automatically or on demand?																					
	Clients are never forced to upgrade. Each client has independent control of when they upgrade to the latest version, build or patch. There is no requirement that all or some clients be on the same version at any time during our release cycle.																					
5.	How often do you normally release product upgrades or enhancements?																					
	Upgrades or "Builds" are released quarterly and are downloaded from the Advanced Web/FTP site. Between builds, executables may be issued to meet client needs. Version changes occur approximately every four to five years.																					
6.	Within your implementation professional services department/division (i.e. project manager, consultants, trainers, etc.) what is the average tenure of those employees with the company?																					
	The average tenure of our implementation professional services department/division employees is 6 years.																					
7.	Will the Vendor contractually agree to:																					
	<table><tr><th colspan="3">Contractual Inquiry</th></tr><tr><th>Term / Condition</th><th>Yes</th><th>No</th></tr><tr><td>Provide <u>on-site</u> staff for training and implementation</td><td>✓</td><td></td></tr><tr><td>Non-performance hold-backs?</td><td>✓</td><td></td></tr><tr><td>Payment hold-backs until fully operational and formally accepted?</td><td>✓</td><td></td></tr><tr><td>Allow the City to approve Vendor staff assigned to help with implementation?</td><td>✓</td><td></td></tr><tr><td>One year warranty, during which the annual support conditions apply. The first, annual support payment would occur after the warranty period expires.</td><td>✓</td><td></td></tr></table>	Contractual Inquiry			Term / Condition	Yes	No	Provide <u>on-site</u> staff for training and implementation	✓		Non-performance hold-backs?	✓		Payment hold-backs until fully operational and formally accepted?	✓		Allow the City to approve Vendor staff assigned to help with implementation?	✓		One year warranty, during which the annual support conditions apply. The first, annual support payment would occur after the warranty period expires.	✓	
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One year warranty, during which the annual support conditions apply. The first, annual support payment would occur after the warranty period expires.	✓																					
8.	Describe how your software will be licensed to the City (i.e. site license, named users, concurrent users, etc.)																					
	CIS Infinity is licensed on a Concurrent User basis (i.e. number of users simultaneously logged into CIS Infinity). There are two components to the CIS Infinity license fee; a server fee based on the total number of concurrent users and a per concurrent user																					

	license fee. There is no license restriction with respect to the number of metered accounts.
9.	Do you need remote access to the server to support/maintain it? If yes, describe the method(s) and security used.
	Although remote access is not required for typical support and maintenance, Help Desk personnel utilize the client's remote access solution to assist customers with specific needs/issues.
<b>Software Updates and Distribution</b>	
10.	It is anticipated that all system updates and release patches will be downloadable from the Vendor's web site. An accumulation patch process is desired. Provide information on how "server" and "client-side" software updates are received, processed and distributed to either the server and/or client environment.
	<p>Clients are never forced to upgrade. Each client has independent control of when they upgrade to the latest version, build or patch. There is no requirement that all or some clients be on the same version at any time during our release cycle.</p> <p>Advanced has no particular amount of time it places on older releases due mainly to the fact that all clients upgrade in a very reasonable amount of time, within 3 months of the minor release and 1 year of a major release.</p> <p>Updates are cumulative, thereby allowing the City to skip updates if so desired.</p> <p>Most clients handle the update process on their own without vendor intervention.</p> <p>Upgrades or "Builds" are downloaded from the Advanced Web/FTP site.</p>
11.	Describe the product release cycle including: <ul style="list-style-type: none"> <li>a. Frequency of upgrades/enhancements or new versions (major and minor version releases)</li> <li>b. Contents of release,</li> <li>c. How long release takes to implement, and</li> <li>d. Use of release notes.</li> </ul>
	<p>Upgrades or "Builds" are released on a quarterly basis and are downloaded from the Advanced Web/FTP site. Between builds, executables may be issued to meet client needs. Version changes occur approximately every four to five years. All enhancements and Version changes are accompanied with full documentation. Client specific modifications are built into CIS Infinity and scheduled as a part of the Update and Upgrade process.</p> <p>Upgrades are major releases, including major new functionality. Major new features may</p>



	<p>be "turned on" or "turned off" via control files. This ensures that clients are not forced to use functionality that is not relevant to them. Some new features may require set-up or training, and in some cases this will require the services of the team at Advanced. These services are billed at market rates.</p> <p>Updates are more minor releases, including bug fixes, performance improvements and client-specific modifications. Generally updates do not require training or set-up hours from Advanced.</p> <p>For resource planning purposes, we suggest allotting 1-2 days to apply Version upgrades and 1 day to apply a Service Pack.</p>
<b>Customizations</b>	
12.	How does the Vendor define customization versus configuration?
	<p>CIS Infinity is not "hard coded" to meet the requirements of a single client, but is configured to suit the needs of each implementation.</p> <p>Updates and Upgrades are provided to all clients to encourage our users to run the most recent version, which improves the ability of Advanced to provide support. Clients are not required to install the new software, but in general they do take advantage of the improved features, performance, and reliability that come with new software releases.</p> <p>Upgrades are major releases, including major new functionality. Major new features may be "turned on" or "turned off" via control files. This ensures that clients are not forced to use functionality that is not relevant to them. Some new features may require set-up or training, and in some cases this will require the services of the team at Advanced. These services are billed at market rates.</p>
13.	How can the City of Columbia customize or configure the software directly without Vendor involvement?
	<p>All business processes can be configured using control tables in CIS Infinity. That is Advanced avoids custom coding in favor of sophisticated configuration tools, so that implementation is faster, cheaper, and reliable. All rules, rates and actions are control table driven. By replacing custom coding with sophisticated configuration tools, implementation is faster, cheaper, and more reliable. When new requirements emerge in the future, the City can use in-house administrative staff to make the changes.</p>
14.	How are local customizations or configurations maintained when installing new releases of the Vendor's software?
	<p>All customizations are maintained during upgrades. Data and configurations are never lost.</p>

## **7 Response to Software Requirements**

**Responses to the requirements referenced in Section 4 of this RFP must be provided in this section of the Vendor's response. Use the Microsoft Excel specification spreadsheet provided and attach added explanation pages as necessary. Please include any costs associated with modifications in the Microsoft Excel pricing spreadsheet.**

Advanced is only bidding the Utility Billing portion of this bid. All other products are a No Bid.

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
General and Technical

Advanced Utility Systems, a division of N. Harris Computer Corporation	
Code	Availability Definition
Y	Functionality is provided out of the box through the completion of a task associated with a routine configurable area that includes, but is not limited to, user-defined fields, delivered or configurable workflows, alerts or notifications, standard import/export, table driven setups and standard reports with no changes. These configuration areas will not be affected by a future upgrade. The proposed services include implementation and training on this functionality, unless specifically excluded in the Statement of Work, as part of the deployment of the solution.
R	Functionality is provided through reports generated using proposed Reporting Tools.
T	Functionality is provided by proposed third party functionality (i.e., third party is defined as a separate software vendor from the primary software vendor). The pricing of all third party products that provide this functionality MUST be included in the cost proposal.
M	Functionality is provided through customization to the application, including creation of a new workflow or development of a custom interface, that may have an impact on future upgradability.
F	Functionality is provided through a future release that is to be available within 1 year of the proposal response.
N	Functionality is not provided.

4.17 - General and Technical						
CIS Infinity						
Objective: To ensure that the application operates consistently and to the technical standards of the entities.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
1	Documentation					
2	Ability to provide online software documentation for all software application modules.	H	Y		CIS Infinity	
3	Ability to provide an on-line tutorial to assist users learning the software.	H	N		CIS Infinity	
4	Ability to provide all vendor supplied software that is accompanied by comprehensive documentation to enable comprehensive understanding of its internal structure and operating procedures.	H	Y		CIS Infinity	
5	Ability to provide Release Notes that document changes between version releases. These documents must be written in a fashion that is easily understandable by the end user. The format of the Release Notes must be conducive to analyzing which changes effect the entities.	H	Y		CIS Infinity	
6	Help System					
7	Ability to provide a menu-driven system with comprehensive utility and "help" screen capabilities.	H	Y		CIS Infinity	
8	Ability to provide a subject or topic search in the help system	H	Y		CIS Infinity	
9	Ability to provide field-level and screen level help throughout the application that can be customized by trained users which may include information relating to City-specific policies.	H	N		CIS Infinity	
10	Ability to provide a mouse-over tool that displays content	H	Y		CIS Infinity	
11	Online Vendor Customer Support Portal					
12	Ability to provide a portal solution to access various on-line information regarding the vendor's solution including: * Knowledge base of user documentation * Release notes * Other documentation	H	Y		CIS Infinity	
13	Ability to provide a portal solution that allows users to submit enhancement requests and system bugs on-line that allows for tracking of progress on individual items.	H	Y		CIS Infinity	

Priority  
H - High | M - Medium | L - Low

Availability  
Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
General and Technical

4.17 - General and Technical				CIS Infinity		
Objective: To ensure that the application operates consistently and to the technical standards of the entities.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
14	Ability to provide a portal solution that allows users to query on specific items that they have submitted.	H	Y		CIS Infinity	
15	Error Processing					
16	Ability to log error messages and store for future review and reporting. Error messages should be meaningful to the user versus being of a technical nature.	M	Y		CIS Infinity	
17	Ability to allow user defined reporting from the error log.	M	Y		CIS Infinity	
18	Ability to allow the system administrator or designated end-users to view the error log on-line to provide support for the users.	H	Y		CIS Infinity	
19	Ability to perform error checking to verify the quality of the information being entered and that system balances are maintained.	H	Y		CIS Infinity	
20	Ability to turn on/off error logging functionality within the system.	H	F		CIS Infinity	
21	Forms Processing					
22	Ability to provide an integrated forms solution that allows for the development of various forms within the system that can be integrated with financial processes. without having to modify application code.	H	Y		CIS Infinity	Bill Prints are done in Crystal Reports, Word mail merge can be used for Notices/Letters. Service Orders can be designed using standard forms functionality
23	Ability to use blank paper stock exclusively (i.e., system generates forms on blank paper, routing & check numbers on blank check paper, etc.).	H	Y		CIS Infinity	
24	Ability for trained users to customize forms without the need for Vendor assistance. Customized forms will be able to be incorporated into future vendor releases.	M	F		CIS Infinity	
25	Standard software functionality provides the ability for all forms printed within the vendor's solution to be archived that will allow for future display of that form either within the vendor's solution, or other native applications. Please list your acceptable formats in the comments section.	H	Y		CIS Infinity	
26	Security and Auditing					
27	Ability to optionally configure integration to use Active Directory (AD) as the source for security credentials.	M	Y		CIS Infinity	
28	Ability to deliver security in a layered format (i.e. data, database, application, network physical).	H	Y		CIS Infinity	
29	Ability to deliver system security that includes security logging into the system.	H	Y		CIS Infinity	
30	System provides a single user administration interface which allows for all system and user and group security and configuration settings to be performed and managed from a single interface.	M	Y		CIS Infinity	
31	Ability to restrict a user's access to specific screens.	H	Y		CIS Infinity	
32	Ability to provide security at the record level.	M	Y		CIS Infinity	

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
General and Technical

4.17 - General and Technical				CIS Infinity		
Objective: To ensure that the application operates consistently and to the technical standards of the entities.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
33	Ability to configure security access to restrict a user's access to individual fields.	M	Y		CIS Infinity	
34	Ability to restrict user access to fields based on a certain range.	M	Y		CIS Infinity	
35	Ability to log all file changes in a detailed permanent audit trail, by user ID, based on user login.	H	Y		CIS Infinity	
36	Ability to provide role based and class based system security	M	Y		CIS Infinity	
37	Ability to have locks on Time / Date fields	M	Y		CIS Infinity	
38	Ability for an administrator to change a user's status to inactive.	H	Y		CIS Infinity	
39	Ability to support electronic/digital signatures.	H	Y		CIS Infinity	
40	Ability to trace the source of all transactions by: workstation, user ID or I.P. address	H	Y		CIS Infinity	
41	Ability to identify users making inquiries or extracting reports from key databases.	M	Y		CIS Infinity	
42	Ability to support the encryption of data communications between the client and the server.	H	Y		CIS Infinity	
43	Ability to define specific user access to processes, icons, screens, reports, records and code tables based on individual and group profiles.	H	Y		CIS Infinity	
44	Ability to restrict a user's access to records meeting certain criteria (i.e., certain divisions).	H	Y		CIS Infinity	
45	Ability to apply security restrictions to report writer utilities.	M	Y		CIS Infinity	
46	Ability to apply security restrictions to global update functions.	H	Y		CIS Infinity	
47	Ability to apply security restrictions to all ODBC, OLE and web services activities.	H	N		CIS Infinity	Function of IT, not CIS application
48	Ability to differentiate access between ability to view versus update for specific data elements.	H	Y		CIS Infinity	
49	Ability to restrict the accessing of security configuration and audit logs.	H	Y		CIS Infinity	
50	Standard system functionality restricts System Administrator account from performing transactions on the system.	M	N		CIS Infinity	
51	Ability to require both user ID and password in order to access system functionality.	H	Y		CIS Infinity	
52	Ability to provide password security which will automatically restrict access after a specified number of erroneous attempts to access.	H	F		CIS Infinity	
53	Ability to ensure that system password settings are "customizable" (based upon the nature of threats to the data residing in the system. Management should be able to set the complexity levels for passwords as appropriate.)	H	F		CIS Infinity	
54	Ability to ensure that system password expiration settings are "flexible" (higher privileged accounts should have passwords which expire every 30-60 days while lesser privileged accounts expire every 60-90 days).	H	F		CIS Infinity	

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available



**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
General and Technical

4.17 - General and Technical				CIS Infinity		
Objective: To ensure that the application operates consistently and to the technical standards of the entities.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
55	Ability to restrict reuse of system passwords for a specifiable period of time.	H	F		CIS Infinity	
56	Ability to enforce minimum password lengths.	H	F		CIS Infinity	
57	Ability to reject a password if it does not meet established password editing & checking criteria that help ensure that the password will not be one that is easily guessed.	M	F		CIS Infinity	
58	Ability to monitor concurrent users to the system and the database.	M	Y		CIS Infinity	
59	Ability to configure the amount of idle time before logout, but maintain a system-wide maximum.	H	Y		CIS Infinity	
60	Ability to lock the system in order to restrict users from logging on	M	N		CIS Infinity	
61	Ability for system to require re-authentication after a specified period of non use.	M	N		CIS Infinity	
62	Ability to ensure that system passwords are suppressed during entry (***** appear instead of the clear-text representation of the password when logging in).	H	Y		CIS Infinity	
63	Ability to track the relevant audit trails and allow "drill down to the source" functionality to review the history of all changes to the data.	M	Y		CIS Infinity	
64	Ability to "audit" (can track specific actions performed).	H	Y		CIS Infinity	
65	Ability to produce an audit report for reconciliation of future date effective transactions.	M	Y		CIS Infinity	
66	Ability to allow management to review the system administrator's activities.	H	Y		CIS Infinity	
67	Ability to provide a "flexible" system audit (can be configured to audit based upon "criticality levels" identified by management for each action performed within the system).	H	Y		CIS Infinity	
68	Ability to provide audit reporting that is "user friendly" (audit reports are not "cryptic", they are easy to understand and act upon).	M	Y		CIS Infinity	
69	Ability to trace transactions through the system using audit reports.	H	Y		CIS Infinity	
70	Ability to require explanation for all overrides configurable by module.	M	N		CIS Infinity	
71	Archiving					
72	Ability to provide an archiving solution for all data elements which provide configuration options for archiving schedules.	M	Y		CIS Infinity	
73	System design provides an "archive" for historical data, without the need for another instance of the environment. (e.g. nightly replication of Production database to Archive environment)	M	N		CIS Infinity	
74	Integration and Interfacing					
75	Ability to import / export non-configuration data (e.g. transaction data) to/from a common data interchange format (e.g. ASCII, XML, CSV, etc.). Please provide a list of accepted formats in the comment section.	H	Y		CIS Infinity	ASCII, XML, CSV, DELIMITED
76	Ability to import / export configuration data to/from a common data interchange format (e.g. ASCII, XML, CSV, etc.). Please provide a list of accepted formats in the comment section.	H	Y		CIS Infinity	ASCII, XML, CSV, DELIMITED

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
General and Technical

4.17 - General and Technical				CIS Infinity		
Objective: To ensure that the application operates consistently and to the technical standards of the entities.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
77	Ability for all data import functions in the system to observe all pre-set data validation rules to enforce data / database integrity	M	Y		CIS Infinity	
78	Ability to support web services as a means of real-time data exchange with other external applications	H	Y		CIS Infinity	
79	Ability to provide a fully documented interface for web services integration	M	Y		CIS Infinity	
80	Ability to import data into master files (commodity codes, Zip, etc.).	H	Y		CIS Infinity	
81	Ability to provide utilities to assist in data conversion.	H	Y		CIS Infinity	
82	Ability to apply security restrictions to all imports performed by a user.	H	Y		CIS Infinity	
83	Ability to integrate with documents / images stored in Electronic Document Management System (EDMS) which the City may consider in the future. Please indicated in Comments section, which EDMS systems that the ERP integrates with.	H	Y		CIS Infinity	Any, using dynamic hyperlinks.
84	System Installation					
85	Ability to optionally provide capabilities for system to be deployed with an "agentless client" (i.e. thin client / no software on the desktop).	H	F		CIS Infinity	
86	Ability to retain user preferences when installing new releases of the vendor's software.	H	Y		CIS Infinity	
87	Ability to provide a configuration management solution to allow for easy management of moving data and programs between the various environments (e.g. Production, Test, Training), and integrate with MSSCCM and Active Directory Push.	M	Y		CIS Infinity	
88	Ability to optionally push out, and rollback, system updates to all clients, from a centralized location.	H	Y		CIS Infinity	
89	System Operations and Administration					
90	Ability to supply various utilities to facilitate file maintenance, data manipulation, and backup/recovery.	H	Y		CIS Infinity	
91	Ability for system to include the appropriate administrative and programming toolsets to configure, modify and customize the software applications.	H	Y		CIS Infinity	
92	Ability for the software vendor(s) to have the facilities to diagnose and maintain the application software and database remotely.	H	Y		CIS Infinity	
93	Ability for the vendor to provide ongoing software maintenance and new software releases periodically to meet all State and Federal requirements at no additional charge.	H	N		CIS Infinity	May be a billable activity.
94	Ability to remain <i>on-line</i> and inquire into <i>multiple</i> applications for extended periods of time.	H	Y		CIS Infinity	
95	Ability to scroll forward <i>and back</i> during inquiry.	H	Y		CIS Infinity	
96	Data Management					
97	System provides detailed metadata for all database tables and fields.	H	Y		CIS Infinity	

**Priority**  
H - High | M - Medium | L - Low

**Availability**  
Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
General and Technical

4.17 - General and Technical

CIS Infinity

Objective: To ensure that the application operates consistently and to the technical standards of the entities.

Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
98	Ability for all informational data elements tracked to be maintained in a (SQL Server) ODBC-compliant integrated database to allow efficient data sharing, customized report writing, and automated posting.	H	Y		CIS Infinity	
99	Ability for system to interact with the relational database and offer robust querying and online analysis tools that do not require programming knowledge, allowing users to pick and choose fields, link tables, and establish criteria.	M	Y		CIS Infinity	
100	Ability to log all on-line input and provide the ability to recover the data files to the point of the last transaction in the event of a programming or system failure. This process should minimize user involvement.	H	Y		CIS Infinity	
101	Ability to access tables from other systems using both SQL and non-SQL data sources.	H	Y		CIS Infinity	
102	Ability to support referential integrity through the use of data definitions.	H	Y		CIS Infinity	
103	Ability to create database integrity constraints that match the business rules enforced by the system through the modules code.	M	Y		CIS Infinity	
104	Ability for the database to allow for data access in a seamless manner even though the data may physically reside on another server.	H	Y		CIS Infinity	
105	Ability to support point-in-time backup and restores of complete system as well as individual modules.	H	Y		CIS Infinity	
106	Ability to support Business Continuity Planning (BCP)/Disaster Recovery Planning (DRP).	M	Y		CIS Infinity	
107	User Interface					
108	Ability for system to ensure that all features and functions within the application will be available and operate identically regardless of the user interface that is used (i.e., web-based or client-based).	M	Y		CIS Infinity	
109	Ability to ensure that the software complies with ADA accessibility standards. To comply with the Americans with Disabilities Act (ADA), information technology must be accessible to people with disabilities. And the information technology's accessibility level must comply with accessibility standards set forth in Section 508 of the Rehabilitation Act. Section 508 requires that Federal agencies' electronic and information technology is accessible to people with disabilities.	H	N		CIS Infinity	
110	Ability to ensure that the software applications comply with ADA accessibility standards, provide functionality for or are compatible with third party industry standard (Lunar, Supernova, Zoom Text, Magic) screen magnification products to enlarge the print on the computer screen and configure print size, contrast and color selection for blind users. Please note third party product compatibility in Comment field.	H	N		CIS Infinity	



**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
General and Technical

4.17 - General and Technical				CIS Infinity		
Objective: To ensure that the application operates consistently and to the technical standards of the entities.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
111	Ability for the software applications to provide functionality for or are compatible with third party industry standard (Hal, JAWS for Windows, Windows Eyes, etc.) screen reading software (used to operate a speech synthesizer, which voices the contents of a computer screen) for blind users. Please note third party product compatibility in Comment field	M	N		CIS Infinity	
112	Ability for system to provide a Web-based interface that uses "point and click" device functionality to choose between pull down menus and options.	H	F		CIS Infinity	
113	Ability for system to ensure a consistent use of command keys and screen layouts across the application, in both the web and the thin client environments.	H	Y		CIS Infinity	
114	Ability for system to allow multiple screens to be open simultaneously within the same session, without licensing constraints.	H	Y		CIS Infinity	
115	Ability to allow any screen to be modified to use organization specific terminology.	H	F		CIS Infinity	
116	Ability to allow unused data elements to be removed, hidden or modified to conform to existing practices without compromising the ability to perform system updates that will result in these changes being lost.	H	Y		CIS Infinity	
117	Ability to create a 'skin' of the application, with configurations and layouts, to be rolled out across the entities (by department, etc.)	L	F		CIS Infinity	
118	Ability to modify pull down menus and pick lists.	M	Y		CIS Infinity	
119	Data Entry & Transaction Processing					
120	Ability to control entry of data to ensure user enters data into all required fields on the screen.	H	Y		CIS Infinity	
121	Ability to have data entry fields automatically default to a specific value (e.g., date fields should default to current date).	H	Y		CIS Infinity	
122	Ability to perform batch data entry of transactions with batch totals.	H	Y		CIS Infinity	
123	Ability for system to provide data entry transaction templates (i.e. journal entries, requisitions, etc.), where the entities can define all of the fields that should default.	M	Y		CIS Infinity	
124	Ability for system architecture to support distributed data entry by authorized users, each with their own configuration preferences.	H	Y		CIS Infinity	
125	Ability to configure tabbing order on all data entry screens, per user.	M	F		CIS Infinity	
126	Ability to "auto fill" fills in field level information (i.e. - vendor name, account name).	H	Y		CIS Infinity	
127	Ability for back-ups or other transactions in one module to not block, delay, or otherwise interfere with transactions in other modules.	M	Y		CIS Infinity	
128	Ability for the system, excluding complete system backup activities or upgrades, to be available 24 hours a day.	H	Y		CIS Infinity	

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
General and Technical

4.17 - General and Technical

CIS Infinity

Objective: To ensure that the application operates consistently and to the technical standards of the entities.

Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
129	System provides record locking functionality which only allow viewing, and query access to system records by users, while a user is making edits to the record	H	Y		CIS Infinity	
130	Ability for system to provide free form comments fields for all transactions – prior to posting, after the fact (multiple un-editable comments with user stamping and date stamping)	H	Y		CIS Infinity	
131	System provides predictive auto-suggest functionality in all text entry fields	M	Y		CIS Infinity	
132	Central Document / Transaction Workflow Engine					
133	Ability to provide workflow functionality, automating business processes within the system that can be controlled and managed by a trained end-user. This workflow includes routing based on roles defined in the system and assigned to each user and rules determining how a process is handled and works consistently across all module areas and user interfaces within the application.	H	Y		CIS Infinity	
134	Ability to provide workflow functionality that allows users to lookup a transaction and see the status in an approval tree.	H	Y		CIS Infinity	
135	Ability to provide workflow functionality that is role based such that departments can perform approvals in a “person independent” manner.	H	Y		CIS Infinity	
136	Ability to provide tickler / reminder functionality throughout the system that could be set to trigger based on certain events (e.g., more than 2 weeks have passed and you are responsible for completing this step, contract is going to expire soon, etc.).	H	Y		CIS Infinity	
137	Ability to trigger a standard email to be sent for notifications through the workflow features.	H	Y		CIS Infinity	
138	Ability to provide the same workflow rules and engine regardless of the user interface that is used (i.e., web-based or client-based interface).	M	Y		CIS Infinity	
139	Ability to provide workflow functionality that allows a user to enter in an unlimited amount of text indicating the reason for the rejection and allows for complete viewing of this text by the user receiving the rejection notice.	H	M	\$16,500.00	CIS Infinity	
140	Ability to provide workflow functionality that allows a user to forward workflow items for a user-designated period of time to another user who will act as a surrogate in being able to review, approve and reject all workflow items in the first user's absence.	H	Y		CIS Infinity	
141	Ability to provide workflow functionality that allows for items to be put into workflow with a combination of parallel or sequential approvals.	H	M		CIS Infinity	Cost included with requirement #139

City of Columbia, MO - Columbia Financial Enterprise Resource System  
General and Technical

4.17 - General and Technical				CIS Infinity		
Objective: To ensure that the application operates consistently and to the technical standards of the entities.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
142	Ability to provide workflow functionality such that in an approval the following options are possible: * All users must approve an item before moving to the next step * One user must approve an item before moving to the next step * Rejection by only one of the users will push the workflow back to the previous step	H	M		CIS Infinity	Cost included with requirement #139
143	Ability to provide workflow functionality that allows for reporting on how long each step in a workflow is taking to perform.	H	M		CIS Infinity	Cost included with requirement #139
144	Ability to provide workflow functionality, allowing for comments, with the following options when reviewing an item: * Approve * Forward * Hold * Reject	H	M		CIS Infinity	Cost included with requirement #139
145	Ability to provide workflow functionality that allows for notification of the results of a workflow step to be sent to a user via email or be viewable internally within the application. The type of notification (email or internal to application) can be customizable for each individual user.	H	M		CIS Infinity	Cost included with requirement #139
146	Ability to provide workflow functionality that allows for users receiving workflow updates via email to click on a link provided within the email that takes the user to the appropriate area within the application to perform the next steps on that workflow.	H	N		CIS Infinity	
147	Address Management					
148	Ability to support a standard naming convention including segments for all addresses within the system.	H	Y		CIS Infinity	
149	Ability to follow the United States Thoroughfare Landmark and Postal Address Data Standard	M	N		CIS Infinity	
150	Ability to maintain separate components for an address record including:	-			CIS Infinity	
151	Parcel ID	H	Y		CIS Infinity	
152	House number	H	Y		CIS Infinity	
153	Direction	H	Y		CIS Infinity	
154	Street name	H	Y		CIS Infinity	
155	Street suffix	H	Y		CIS Infinity	
156	Unit Type (i.e. apartment, suite, etc.)	H	Y		CIS Infinity	
157	Unit Designation (i.e. 101, 102, etc.)	H	Y		CIS Infinity	
158	City	H	Y		CIS Infinity	
159	State	H	Y		CIS Infinity	
160	Zip code + 4	H	Y		CIS Infinity	
161	Ability to support a single customer record that is not duplicated within the system.	H	Y		CIS Infinity	

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
General and Technical

4.17 - General and Technical

CIS Infinity

Objective: To ensure that the application operates consistently and to the technical standards of the entities.

Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
162	Ability for addresses to support the USPS standard.	H	Y		CIS Infinity	
163	Ability to allow for foreign addresses	H	Y		CIS Infinity	
164	Standard system functionality provides ability to import master City / State / ZIP file from a 3rd party (US Post Office) and validate addresses with the system against it. Also defaults City and State, if ZIP is entered.	H	Y		CIS Infinity	
165	Management Dashboard					
166	Ability to provide system data in "management dashboard" views.	H	Y		CIS Infinity	Seven predefined KPI widgets are available (Account & Collection Status, Service Order, Cash, Billing MoveOut/In Summary, Unprocessed Reads, . Data can be exported to Excel.
167	Ability for users to be able to individually configure their "management dashboard" views.	M	Y		CIS Infinity	
168	Ability for users to drill down from "management dashboard" reports to the source transactions.	M	N		CIS Infinity	
169	Ability to display data from data sources external to the FMIS which contain common relational databases	M	N		CIS Infinity	
170	Dashboard provides the ability to format components using bar charts, dials, gauges and graphing components	M	N		CIS Infinity	
171	Ability to establish Key Performance Indicators	M	N		CIS Infinity	
172	Ability to configure dashboard components and publish for other dashboard users to subscribe to	M	N		CIS Infinity	
173	Ability to personalize dashboard components per FMIS user, by configuring input parameters	M	N		CIS Infinity	
174	Ability for dashboard components to filter data based on users department / division	M	Y		CIS Infinity	Cycle/book
175	Dashboard components recognize established system security framework	M	Y		CIS Infinity	
176	Ability to configure dashboard components to visualize trends over time, including comparative activity (e.g. past x months, past x years, this month compared to same month last year, etc.)	M	N		CIS Infinity	
177	Reporting and Printing					
178	Ability for system to provide a reporting environment that satisfies a number of different users needs and levels of reporting sophistication.	M	Y		CIS Infinity	
179	Ability for system to have an integrated report writer with the following features:	-			CIS Infinity	
180	Report Writer capability with file organization structure consistent between all application modules	M	Y		CIS Infinity	Runtime license of Crystal Reports included with CIS Infinity license. All standard reports are created using Crystal Reports.

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available



**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
General and Technical

4.17 - General and Technical				CIS Infinity		
Objective: To ensure that the application operates consistently and to the technical standards of the entities.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
181	Integration with all other application modules on the same processor for custom report creation	H	Y		CIS Infinity	
182	Flexible report formatting capabilities	H	Y		CIS Infinity	
183	Mailing list and label generation capability	H	Y		CIS Infinity	
184	Ability to retrieve information from multiple tables / files	H	Y		CIS Infinity	
185	Ability to specify desired subtotal breaks and totaling fields	H	Y		CIS Infinity	
186	Ability to obtain reports in different sort sequences	H	Y		CIS Infinity	
187	Ability to calculate percentages	H	Y		CIS Infinity	
188	Ability to calculate averages	H	Y		CIS Infinity	
189	Ability to perform arithmetic calculations	H	Y		CIS Infinity	
190	Ability to make minor alterations to <i>previously</i> defined reports.	H	Y		CIS Infinity	
191	Ability to prepare / print reports from any accounting period and across periods.	H	Y		CIS Infinity	
192	Ability to set up menus of created reports for easy access and printing	H	Y		CIS Infinity	
193	Option available to send report to the screen, a printer, or to a file.	H	Y		CIS Infinity	
194	Ability to select any account or range of accounts in the chart of accounts for inclusion in reports or exclusion	H	Y		CIS Infinity	
195	"Wildcard" and/or "Keyword" capability to allow easy accessing of a range of values when creating reports	H	Y		CIS Infinity	
196	Ability to quickly access a range or set of accounts for report creation by specifying a fund, utility and/or account type	H	Y		CIS Infinity	
197	Sequentially numbered pages on reports	H	Y		CIS Infinity	
198	Shows current date and reports "as of" date	H	Y		CIS Infinity	
199	Data fields include commas, decimal points, dollar signs, +/- signs, etc. and are right or left justified as appropriate	H	Y		CIS Infinity	
200	Ability to select any department (or cost center) or range(s) of departments (or cost centers) for inclusion or exclusion in/from reports	H	Y		CIS Infinity	
201	Ability to "drill down" allowing a user to begin with a summary level screen / online report and inquire on progressively more detailed (i.e., source) transactions.	H	Y		CIS Infinity	
202	Ability to provide a simple, easy drill down / drill around – with minimal keystrokes.	M	Y		CIS Infinity	
203	Ability to output electronically (file or diskette) to all governmental entities as required by law.	H	Y		CIS Infinity	May require formatting to meet governmental requirements
204	Ability for reports to be scheduled to run (i.e. to PDF).	H	Y		CIS Infinity	
205	Ability to export all reports into properly formatted excel.	H	Y		CIS Infinity	
206	Ability to execute reports with an "as of" date.	M	Y		CIS Infinity	
207	Ability to allow end users to directly print reports and inquiry screens to printer, without cumbersome use of a "print queue".	H	Y		CIS Infinity	

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
General and Technical

4.17 - General and Technical				CIS Infinity		
Objective: To ensure that the application operates consistently and to the technical standards of the entities.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
208	Ability to allow search criteria on reports to be not-exact matches, partials, or similar.	H	Y		CIS Infinity	
209	Ability to automatically route reports via a workflow.	M	Y		CIS Infinity	
210	Ability to print from the ERP screens.	H	Y		CIS Infinity	
211	Ability to provide system-wide search functionality for keyword search, across all master and transaction records, to assist with fulfilling open records requests.	H	Y		CIS Infinity	
212	Ability for system to allow users to perform inquiries and searches by any field available for data entry.	M	Y		CIS Infinity	
213	Ability to reprint reports, checks, or bills with restart capability when reports, checks, or bills being printed are interrupted.	H	Y		CIS Infinity	
214	Ability to print all reports to laser printers (in either portrait or landscape format)	H	Y		CIS Infinity	
215	Ability for system to provide report formats that are developed to maximize data available on a page while still being readable.	H	Y		CIS Infinity	
216	Ability to print Accounts Payable and Payroll checks to laser printers with signatures and MICR coding (with appropriate security measures in place).	H	N		CIS Infinity	Not applicable
217	Ability to allow formatted output to be matched to printer device characteristics without intervention by the user.	H	N		CIS Infinity	
218	Ability to provide utilities for the user to choose delivery of a print job to an appropriate printer.	H	Y		CIS Infinity	
219	Ability for a user to specify which printer will print a specific report.	H	Y		CIS Infinity	
220	Ability to print screen contents (format and data) of each display.	H	Y		CIS Infinity	
221	Ability to print inquiry and data entry screens directly to a printer from the data entry or inquiry screen.	H	Y		CIS Infinity	
222	Ability to access system via mobile devices.	H	Y		CIS Infinity	Optional: Infinity.Mobile for service orders.
223	System to provide the ability for reports to be configurable by users	M	Y		CIS Infinity	
224	System to provide "user-friendly" reporting functionality	M	Y		CIS Infinity	
225	System provides a "light" interface for use / deployment on a mobile device such as smartphone, tablet, or iPad.	M	N		CIS Infinity	Optional: iPhone app for customers to access bills/make payments etc. Extension of Infinity.Link, utility customer web self service application.

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
Utility Billing

Advanced Utility Systems, a division of N. Harris Computer Corporation

Code	Availability Definition
Y	Functionality is provided out of the box through the completion of a task associated with a routine configurable area that includes, but is not limited to, user-defined fields, delivered or configurable workflows, alerts or notifications, standard import/export, table driven setups and standard reports with no changes. These configuration areas will not be affected by a future upgrade. The proposed services include implementation and training on this functionality, unless specifically excluded in the Statement of Work, as part of the deployment of the solution.
R	Functionality is provided through reports generated using proposed Reporting Tools.
T	Functionality is provided by proposed third party functionality (i.e., third party is defined as a separate software vendor from the primary software vendor). The pricing of all third party products that provide this functionality MUST be included in the cost proposal.
M	Functionality is provided through customization to the application, including creation of a new workflow or development of a custom interface, that may have an impact on future upgradability.
F	Functionality is provided through a future release that is to be available within 1 year of the proposal response.
N	Functionality is not provided.

**4.32 - Utility Billing**

CIS Infinity

*Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.*

Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
1	System Requirements					
2	System has the ability to search for customer information by customer id, location id, customer name, service address, phone number, driver license number, etc. For any non-numeric search, system will provide list of available choices for criteria being searched if an exact match is not found.	H	Y		CIS Infinity	Wildcards
3	System allows for search of accounts by parcel ID (PIN)	M	Y		CIS Infinity	
4	System provides utility account search with wildcards	H	Y		CIS Infinity	
5	System provides a customer overview screen displaying configurable customer information, including pending activity.	H	Y		CIS Infinity	
6	System provides ability to associate a landlord account with every account and provides tools to perform an automated rollback if a renter finals.	H	Y		CIS Infinity	
7	System provides functions to research account details and perform account adjustments	H	Y		CIS Infinity	
8	Retains and displays (system administer defined) multiple years of billing and collection history in 'Live' database.	H	Y		CIS Infinity	
9	System tracks utility read routes / sequences, including tracking of directions and meter location	H	Y		CIS Infinity	Directions not supported.
10	Ability to view a "Change History" of records changed by internal staff.	H	Y		CIS Infinity	
11	Credit card and draft debit – auto draft available for all Utility Billing services	H	Y		CIS Infinity	Requires integration with third payment processor. PA-DSS Certified.
12	System provides e-payment and web customer account services/tools	H	Y		Infinity.Link	
13	System provides graphic display of usage history per account	H	Y		CIS Infinity	
14	System provides the average usage per account based on a user configurable time frame	H	Y		CIS Infinity	
15	System provides ability to perform "what if" billing calculations scenarios	H	Y		CIS Infinity	In test system

Priority

H - High | M - Medium | L - Low

Availability

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
**Utility Billing**

4.32 - Utility Billing

CIS Infinity

Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.

Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
16	System provides tools to assess late charges and provides the related customer correspondence via phone calls, email or written notice	H	Y		CIS Infinity	
17	Ability to attach images to an account	H	Y		CIS Infinity	
18	Ability to track all meters by coordinates	H	Y		CIS Infinity	
19	Ability to create an intuitive and simplified billing calendar based on global system control setup	H	Y		CIS Infinity	
20	Ability to have a environment to test rate increases and adjustments	H	Y		CIS Infinity	
21	Ability to have a credit history indicator	H	Y		CIS Infinity	
22	Ability to track rebate history by location and/or customer	H	Y		CIS Infinity	
23	System provides multiple user defined fields/codes that are searchable and reportable	H	Y		CIS Infinity	
24	User friendly configurable dashboard	M	Y		CIS Infinity	Seven predefined KPI widgets.
25	Account Set-Up					
26	Maintains utility account master file information in a relational database, including:	-			CIS Infinity	
27	User Defined Account Number set up with the ability to automatically assign the next available number for new accounts based on cycle and route.	H	Y		CIS Infinity	Cycle
28	Name and Address (both service and billing for owner and renter) follow USPS standard	H	Y		CIS Infinity	
29	Multiple contact phone numbers	H	Y		CIS Infinity	
30	E-mail address	H	Y		CIS Infinity	
31	Customer type (residential, commercial, multi-family, mixed residential & commercial or others user configurable based on service, etc.)	H	Y		CIS Infinity	
32	Cycle (at least three digits in length: has 16 cycles and each has 7 routes)	H	Y		CIS Infinity	
33	Route (at least three digits in length)	H	Y		CIS Infinity	
34	Meter Reading Sequence Number (5 digits numeric minimum)	H	Y		CIS Infinity	
35	Account status (active, inactive, off for non-payment, being finaled, write-off, etc.)	H	Y		CIS Infinity	
36	<b>Water Services:</b> residential water, commercial water, irrigation, backflow, etc. with ability to add additional services	H	Y		CIS Infinity	
37	<b>Stormwater:</b> Ability to bill to a parcel or an address	H	Y		CIS Infinity	
38	<b>Sewer Services:</b> residential sewer, commercial sewer, etc. with ability to add additional services	H	Y		CIS Infinity	

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available



**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
Utility Billing

4.32 - Utility Billing				CIS Infinity		
Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
39	<b>Electric Services:</b> Residential non electric heat with load mgmt switch; Residential non electric heat with NO load mgmt switch; Residential electric heat with load mgmt switch; Residential electric heat with NO load mgmt switch; Small commercial accounts: Street lights; etc. with ability to add additional services	H	Y		CIS Infinity	
40	<b>Refuse and Solid Waste:</b> Refuse residential , Refuse commercial; Recycling; Solid waste, etc. with ability to add additional services	H	Y		CIS Infinity	
41	<b>Other:</b> miscellaneous flat rate charges (i.e. trash out early, shut off, etc.) Safe Drinking Water Fee; State Sanitary Sewer Permlt Fee, etc. with ability to add additional services	H	Y		CIS Infinity	
42	Allow for sewer billing based upon water usage, number of fixtures or flat rate codes	H	Y		CIS Infinity	
43	Number of Units (stores, apts., etc.)	H	Y		CIS Infinity	
44	Past Due Notice override with proper authorization	H	Y		CIS Infinity	
45	Shut Off Notice override with proper authorization	H	Y		CIS Infinity	
46	Final bill indicator	H	Y		CIS Infinity	
47	Installation date by service	H	Y		CIS Infinity	
48	Customer Initiation Date	H	Y		CIS Infinity	
49	Service Initiation Date (when individual service is activated allowing multiple initiation dates per service)	H	Y		CIS Infinity	
50	Billing History	H	Y		CIS Infinity	
51	Consumption/usage history by meter	H	Y		CIS Infinity	
52	Adjustment history	H	Y		CIS Infinity	
53	Payment/collection history	H	Y		CIS Infinity	
54	EFT Bank Account & ABA Routing Number	H	Y		CIS Infinity	
55	EFT Start/Stop Dates	H	Y		CIS Infinity	
56	EFT Bank Account Type	H	Y		CIS Infinity	
57	Tax ID/Parcel Number/PCN	M	Y		CIS Infinity	
58	Taxable Status	H	Y		CIS Infinity	
59	Business Type	H	Y		CIS Infinity	
60	Masked/redacted social security numbers (encrypted & stored in database)	H	Y		CIS Infinity	
61	Amount Due/Received	H	Y		CIS Infinity	
62	Comments/Notes (unlimited)	H	Y		CIS Infinity	
63	Rate Codes by service	H	Y		CIS Infinity	
64	Read Date	H	Y		CIS Infinity	
65	Current/Last read	H	Y		CIS Infinity	

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
Utility Billing

4.32 - Utility Billing				CIS Infinity		
Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
66	Billing specific comments and notes	H	Y		CIS Infinity	
67	Alternate and/or seasonal addresses	H	Y		CIS Infinity	
68	Type of dwelling (house, apt, rental, duplex, etc.)	H	Y		CIS Infinity	
69	Rental unit identifier	H	Y		CIS Infinity	
70	Jurisdiction	H	Y		CIS Infinity	
71	Heat source	H	Y		CIS Infinity	
72	Load management switch installed indicator	H	Y		CIS Infinity	
73	Load shed/reduce agreement indicator	H	Y		CIS Infinity	
74	Group (to designate individual bills to a "Master Account Bill")	H	Y		CIS Infinity	
75	Type of Rebate(s) Received (multiple available, need separate field for each)	H	Y		CIS Infinity	
76	Amount of Rebate Received (multiple available, need separate field for each)	H	Y		CIS Infinity	
77	Voluntary contribution program(s) designation	H	Y		CIS Infinity	
78	Ability to enter new customer information into the system and pre-print out the application form with entered information for the customer to sign that includes all associated charges.	H	Y		CIS Infinity	
79	Delineates tenant-landlord relationship. Allows user to specify who receives the bill and who is responsible for delinquencies.	H	Y		CIS Infinity	
80	Ability to reinstate an inactive account.	H	Y		CIS Infinity	
81	Ability to maintain inactive accounts for a user-defined period of time before purging from the system.	H	Y		CIS Infinity	
82	Ability to retain inactive account information, including meter information	H	Y		CIS Infinity	
83	Ability to change account status to 'shut off' and continue billing charges	H	Y		CIS Infinity	
84	Ability to inactive all services at once when an account is being closed out rather than having to close each service individually.	M	Y		CIS Infinity	
85	Allows the addition and reassignment of cycles and routes without affecting the customer or location identification numbers.	H	Y		CIS Infinity	
86	System provides a customer master screen, with the ability to display multiple utility accounts and multiple addresses per customer account.	H	Y		CIS Infinity	
87	Ability to accept international mailing address formats	H	Y		CIS Infinity	
88	System provides tools to allow for batch creation of accounts	H	Y		CIS Infinity	
89	System provides tools to allow for batch edits to accounts	H	Y		CIS Infinity	For selected fields
90	Provides for mass changes to accounts due to the deletion of a cycle, the merging of existing cycles, or moving a sub-segment of a cycle to another.	H	Y		CIS Infinity	
91	Allow for mass changes for selected master file fields and location services	H	Y		CIS Infinity	
92	Ability to split customer accounts	H	Y		CIS Infinity	

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**Priority**

H - High | M - Medium | L - Low

City of Columbia, MO - Columbia Financial Enterprise Resource System

Utility Billing

4.32 - Utility Billing			CIS Infinity			
Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
93	System provides a workflow/wizard during account set up confirming all appropriate steps have been completed	H	Y		CIS Infinity	
94	Deposits					
95	System provides the ability to apply security deposits to accounts after meeting user defined criteria (based on payment activity, when the customer closes the account, after 5 years of excellent payment history, etc.).	H	Y		CIS Infinity	
96	System will print a detailed receipt for customer deposits.	M	Y		CIS Infinity	
97	Ability to set up multiple deposit types (tenants vs. owners) & rates	H	Y		CIS Infinity	
98	Ability to track when the deposit was collected	H	Y		CIS Infinity	
99	Ability to calculate a deposit based on historical consumption averages and meter size at location.	L	Y		CIS Infinity	
100	Ability to calculate a deposit based on customer payment or credit history.	H	Y		CIS Infinity	
101	Ability to calculate an additional deposit on an account based on customer payment history or user defined parameters.	H	Y		CIS Infinity	
102	Ability to calculate a deposit on system identified rental units.	L	Y		CIS Infinity	
103	Ability to record non-cash deposits (i.e. bonds)	H	Y		CIS Infinity	
104	Rate Set Up					
105	Configurable multi-component based with the ability to handle seasonal rate changes and tier structure including time of use and real time rates	H	Y		CIS Infinity	
106	Various tiered consumption rates based on customer type (residential, commercial, small commercial, industrial)	H	Y		CIS Infinity	
107	Monthly base/flat rate service charge base plus consumption	H	Y		CIS Infinity	
108	Ability to calculate a new electric ratchet charge based on the prior summer demand history in the last 11 months, or user defined time frame.	H	Y		CIS Infinity	
109	Tiered rates based on a user defined winter quarter's average	H	Y		CIS Infinity	
110	Ability to calculate a base consumption amount that rates are calculated off of	H	Y		CIS Infinity	
111	Sewer: Ability to take 5 months of actual reads, drop off the highest read & lowest read and bill on the average of the three reads left and if higher than a user defined minimum bill that usage. If lower than the minimum then will average a user defined number of months (usually 12) of actual reads and bill on that amount for the sewer.	H	Y		CIS Infinity	
112	Ability to have net metering (two meters one recording inflow (of solar power) & other outflow)	H	Y		CIS Infinity	
113	Ability for the rates to automatically change with the season based on user defined months of the season parameters.	H	Y		CIS Infinity	

Priority

H - High | M - Medium | L - Low

Availability

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
Utility Billing

4.32 - Utility Billing				CIS Infinity		
Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.						
Number	Application Requirements	Priority	Availability	Cost	Required Product	Comments
114	Ability for rates to prorate consumption charges across season change (summer & non summer) based on 30 days or a definable usage month.	H	Y		CIS Infinity	
115	Proration of flat rate charges	H	Y		CIS Infinity	
116	Flat rate per impervious area (storm water)	H	Y		CIS Infinity	
117	Flat rate based on meter size	H	Y		CIS Infinity	
118	Multiple phased meters (for electric)	H	Y		CIS Infinity	
119	Multiple rates based on time of day (for electric)	H	Y		CIS Infinity	
120	Fire Suppression Systems or Meters	H	Y		CIS Infinity	
121	Irrigation Metering	H	Y		CIS Infinity	
122	Hydrant Meter	H	Y		CIS Infinity	
123	Stormwater - flat rate based on sq. ft. of 1st floor; BASED ON IMPERVIOUS AREA	H	Y		CIS Infinity	
124	Refuse - flat rate based on size of container & frequency DAY OF THE WEEK	H	Y		CIS Infinity	
125	Recycling - flat rate based on size x # of units	H	Y		CIS Infinity	
126	Yard Waste - flat rate x # of units	H	Y		CIS Infinity	
127	Disposal Fees -	H	Y		CIS Infinity	
128	Payment in Lieu of Tax (PILOT) (applied against the consumption)	H	Y		CIS Infinity	
129	Sales Tax (billed at multiple sales tax rates)	H	Y		CIS Infinity	
130	Sales Tax Exemptions (Governmental, Hotel, etc.)	H	Y		CIS Infinity	
131	User Defined Miscellaneous Fees (i.e. turn off, turn on, nsf, tampering, etc.)	H	Y		CIS Infinity	
132	Late Payment Penalty	H	Y		CIS Infinity	
133	Monthly Interest after 90 days	L	Y		CIS Infinity	
134	Discount percentages (if agree to load management or if meter is before or after the transformer could have loss between meter & transformer)	H	Y		CIS Infinity	
135	Allows for different charge methods for each user-defined service charge type:	-			CIS Infinity	
136	Flat charge	H	Y		CIS Infinity	
137	Multiplier based on meter definition or user defined multiplier	H	Y		CIS Infinity	
138	Multi-tiered based on user defined values BLOCK RATES	H	Y		CIS Infinity	
139	Seasonal rates for water and electric	H	Y		CIS Infinity	
140	Multiplier based on number of units	H	Y		CIS Infinity	
141	Provides multiple tiered rate schedules based upon service type, customer class (residential/commercial) and meter size.	H	Y		CIS Infinity	
142	System supports component billing capable of supporting multiple charge types, each with a different rate	H	Y		CIS Infinity	
143	Ability to add, delete, or suspend (for a user-defined time period) and itemize service charges and/or any miscellaneous fees to a utility bill.	H	Y		CIS Infinity	

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available



**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
Utility Billing

4.32 - Utility Billing				CIS Infinity		
Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
144	Ability to create, edit and revise rate tables, tracking history of prior rate tables.	H	Y		CIS Infinity	
145	Ability to determine and track which services (i.e. water & base charges only) will have a surcharge	H	Y		CIS Infinity	
146	Ability to determine and track which services will have a sales tax or PILOT	H	Y		CIS Infinity	
147	Ability to have the utility tax charge go to a unique revenue account in GL rather than grouping this with the service that is being taxed.	H	Y		CIS Infinity	
148	Ability to have the surcharge go to a unique revenue account in the GL rather than grouping this with the service that is being surcharged.	H	Y		CIS Infinity	
149	Ability to have each component charge to go to a different revenue account	H	Y		CIS Infinity	
150	Ability to set dates when new rates become effective	H	Y		CIS Infinity	
151	Meters					
152	Ability to have multiple meters accounts associated with the same address.	H	Y		CIS Infinity	
153	Ability to have multiple address per meter	H	Y		CIS Infinity	
154	Ability to have location history per meter (i.e. tracking when a meter moves from one location to another)	H	Y		CIS Infinity	
155	Ability to create / update Meter numbers.	H	Y		CIS Infinity	
156	Ability to add / delete meters in mass or range	H	Y		CIS Infinity	
157	System tracks the following for installed meters:	-			CIS Infinity	
158	Meter size	H	Y		CIS Infinity	
159	Meter type	H	Y		CIS Infinity	
160	Meter Reader Instructions (32 characters minimum)	H	Y		CIS Infinity	
161	Meter Number (with ability to assign multiple meters per account)	H	Y		CIS Infinity	
162	Remote Location Description (unlimited)	H	Y		CIS Infinity	
163	Longitude & Latitude	M	Y		CIS Infinity	
164	Meter/Remote ID Number	H	Y		CIS Infinity	
165	Meter Serial Number	H	Y		CIS Infinity	
166	Meter number of dials (minimum of 8)	H	Y		CIS Infinity	
167	active / inactive / retired / In stock	H	Y		CIS Infinity	
168	Installed date	H	Y		CIS Infinity	
169	age (calculated based on installed date)	H	Y		CIS Infinity	
170	date meter pulled out of service	H	Y		CIS Infinity	
171	automated meter reading device attached?	H	Y		CIS Infinity	
172	associated meter device	H	Y		CIS Infinity	
173	Read Date	H	Y		CIS Infinity	
174	Current Read	H	Y		CIS Infinity	
175	Last Read	H	Y		CIS Infinity	
176	Capability to support compound meters.	L	Y		CIS Infinity	

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
Utility Billing

4.32 - Utility Billing				CIS Infinity		
Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.						
Number	Application Requirement	Priority	Availability	CCW	Required Product(s)	Comments
177	System provides ability to combine meters for consolidated billing	H	Y		CIS Infinity	
178	Allows inquiry to meter history by meter number, remote ID number, account number service address or latitude/longitude.	H	Y		CIS Infinity	
179	<b>Billing</b>					
180	Capability to prompt meter reading entry by displaying customer accounts in user defined sequence	H	Y		CIS Infinity	
181	Ability to automatically generate meter estimates (based on a change that has occurred in a prior cycle) and report on the estimates	H	Y		CIS Infinity	
182	System provides the ability to establish billing cycle records with month / year; bill distribution date; bill due date and delinquency date.	H	Y		CIS Infinity	
183	Estimates a utility bill based on criteria established by the Municipality (i.e.: on the average consumption over a user defined number of months or cycles, or using last year's actual for the same period) and shows "Estimate" on the customer's bill.	H	Y		CIS Infinity	
184	Ability for the system to estimate on historical consumption	H	Y		CIS Infinity	
185	Ability for a user to enter a manual estimate.	H	Y		CIS Infinity	
186	Capability of automatically applying certain misc. charges of varying amounts against selected accounts.	H	Y		CIS Infinity	
187	Ability to handle meter readings up to 8 significant digits.	H	Y		CIS Infinity	
188	Ability to calculate a credit when previous estimate was more than the actual consumption.	H	Y		CIS Infinity	
189	Ability to process seasonal billings (i.e. filling stations) and put on the regular bill	H	Y		CIS Infinity	
190	System has the ability to change a read and individually rebill or recalculate the bill. In essence, cancel and rebill accounts.	H	Y		CIS Infinity	
191	Ability to create surcharge services based on account jurisdiction	H	Y		CIS Infinity	
192	System provides a mechanism for "holding" bills that are flagged as outside of the Municipality's user-defined exception criteria for billing without disrupting the rest of the billing. Then having the ability to bill at any time after exceptions have been verified/resolved.	H	Y		CIS Infinity	
193	System provides a Billing Exception Report that alerts for consumptions that fall outside of the Municipality's user defined exception criteria. Report should include meter info, current and past consumptions, new and previous readings, days between readings, customer account number, meter reader information, and average consumption per customer with expected high/low usage based on average.	H	Y		CIS Infinity	
194	System provides reports by service: no bill, unbilled, rules to flag and identify, validation	H	Y		CIS Infinity	
195	System tracks revenue by rate class	H	Y		CIS Infinity	
196	System provides a list that details accounts that have an actual read for the current billing cycle and an estimated read the prior billing cycle.	H	Y		CIS Infinity	

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
Utility Billing

4.32 - Utility Billing				CIS Infinity		
Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
197	System provides the ability to post updates to accounts with new billing information before bills are generated (e.g., amount due, reads, dates, etc.).	H	Y		CIS Infinity	
198	Ability to remove a customer record from calculated billing file	H	Y		CIS Infinity	
199	Ability to apply credit and debit adjustments and positive / negative consumption adjustments to accounts anytime during the billing cycle.	H	Y		CIS Infinity	
200	Adjustments report displays adjustment details including dollar amount, consumption volume (gallons/cubic ft.) and rate/service code.	H	Y		CIS Infinity	
201	Ability to add additional charges (i.e. a non-payment charge) to the current bill during the billing process.	H	Y		CIS Infinity	
202	Provides the ability to enter adjustments to customer accounts (dollar amounts and/or consumption used) and reprint single billing statements reflecting the adjustments made.	H	Y		CIS Infinity	
203	Ability to edit reads at any time, before, during, or after billing with audit trail capabilities.	H	Y		CIS Infinity	
204	Ability to prorate charges for partial billing due to initiation or termination of accounts.	H	Y		CIS Infinity	
205	Capability to print previous period/last year's comparative period consumption and current period consumption on each bill.	M	Y		CIS Infinity	
206	Ability to bill various services/charges at differing frequencies (i.e.: monthly, bimonthly, semi-annually or annually ).	M	Y		CIS Infinity	
207	Bills can be based on multiple components (consumption + flat meter charge per meter size and administrative charge per billing cycle prorated for number of days).	H	Y		CIS Infinity	
208	Ability to calculate and print all bills due in a given month, within a single cycle or for all cycles.	H	Y		CIS Infinity	
209	System provides ability for the Municipality to prorate mid-cycle rate increases for existing billable services.	M	Y		CIS Infinity	
210	System provides tools for flagging accounts for sorting associated printed bills as "Pulled" for review by staff before exporting the billing file to the printer	H	Y		CIS Infinity	
211	Ability to hold printing of the bill for a specific customer for the current billing cycle or specified length of time	H	Y		CIS Infinity	
212	System provides automated bill runs based on pre-defined billing date and allows for ability to generate a bill on demand	H	Y		CIS Infinity	
213	System provides ability to bill storm water services, trash and miscellaneous charges separately for owner versus renter at same location (separate bills).	H	Y		CIS Infinity	
214	Ability to change the bill date and/or due date in mass if error was made during the bill calculation	H	Y		CIS Infinity	

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
Utility Billing

4.32 - Utility Billing		CIS Infinity				
Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.						
Number	Application Requirement	Priority	Availability	Cost	Required Product(s)	Comments
215	Ability to bill internal departments for all utility services and other miscellaneous work performed.	H	Y		CIS Infinity	
216	Ability to allocate inter-departmental billing to multiple general ledger accounts at user defined percentages	H	Y		CIS Infinity	
217	Ability to provide budget billing which would calculate a set amount per billing period per service based on a set of user defined usage parameters.	H	Y		CIS Infinity	
218	Ability to bill customers for sales tax on water & electric sales, apply and track all exemptions from sales tax in compliance with Missouri sales tax law	H	Y		CIS Infinity	
219	Printing of the Bills					
220	System allows for creation of a customizable utility bill format that includes graphics	M	Y		CIS Infinity	
221	Ability to print a user defined number of months of usage history in a graphic display	M	Y		CIS Infinity	
222	Ability to generate bills capable of being read via Optical Character Recognition OCR and barcode. Information must include:	-	Y		CIS Infinity	
223	Account #	H	Y		CIS Infinity	
224	Check digit (verification that account was read properly)	H	Y		CIS Infinity	
225	Bill Amount	H	Y		CIS Infinity	
226	Ability to export a file of utility bills to an external bill printing organization (i.e. 3rd party billing services).	H	Y		CIS Infinity	
227	Uses Zip+4 software for sorting of utility bills by zip code to obtain the best postal rate possible.	H	Y		CIS Infinity	Standard intrface to Melissa Mailers +4
228	System provides the ability to reprint bills.	H	Y		CIS Infinity	
229	Ability to email bills (original, re-bills or reprints) to customers when requested.	H	Y		CIS Infinity	
230	System accommodates multiple dates (due and delinquent) per customer bill	H	Y		CIS Infinity	
231	Capability to include total past due on the bills.	H	Y		CIS Infinity	
232	Ability to provide general system messages and account specific messages for printing on bills with the ability to modify those messages for each bill run after bill generation but before exporting to third party printer.	H	Y		CIS Infinity	
233	For accounts that are paying via ACH or recurring credit card, still generate a bill with a message but also indicate that they do not need to pay, due to auto pay.	H	Y		CIS Infinity	
234	Ability to print on multiple bill formats (i.e. post card, 8.5 x 11, etc.)	L	Y		CIS Infinity	
235	Ability to have larger font sizes for bill printing on flagged customers (seniors & sight impaired customers)	H	Y		CIS Infinity	

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available



City of Columbia, MO - Columbia Financial Enterprise Resource System

Utility Billing

4.32 - Utility Billing				CIS Infinity		
Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
236	Ability to automatically group individual accounts on a "Master Account Bill" when printing the bill.	H	Y		CIS Infinity	
237	Ability to recreate an image of each customer's historical bill on request.	H	Y		CIS Infinity	
238	Utility Receipting					
239	System accommodates the following payment types for utility payments and applications, either via the utility system or a separate Cash Receipting system which is integrated to the utility system:	-			CIS Infinity	
240	Cash	H	Y		CIS Infinity	
241	Check	H	Y		CIS Infinity	
242	EFT/ACH	H	Y		CIS Infinity	
243	Credit Card Payments	H	Y		CIS Infinity	Requires 3rd party payment merchant
244	Credit/Debit Card Payments taken over the Internet or phone.	H	Y		CIS Infinity	Requires 3rd party payment merchant
245	File import from 3rd party payment organization (i.e. lock box, ACH, etc.)	H	Y		CIS Infinity	
246	IVR transactions	H	Y		CIS Infinity	Requires 3rd party payment merchant
247	Ability to indicate date/time payment was received for penalty calculations.	H	Y		CIS Infinity	
248	Ability to choose a payment date when using auto pay / ACH	M	Y		CIS Infinity	
249	System provides the ability to generate a receipt with payments for multiple accounts. The printed receipt should show the detail of each account.	H	Y		CIS Infinity	
250	Capability to accept more than one payment in a single day from a single customer.	H	Y		CIS Infinity	
251	Automatically creates a journal entry and will update the General Ledger after accounting approval step is performed.	H	Y		CIS Infinity	
252	Automatically splits total receipted amount to appropriate General Ledger account.	H	Y		CIS Infinity	
253	Ability to post cash receipts to utility billing module automatically from multiple terminals without interfering with other utility transactions.	H	Y		CIS Infinity	
254	System provides the capability to set the priority for payment application based on each type of service (posting priority).	H	Y		CIS Infinity	
255	System provides functionality to define proration of partial payments against various charge types.	H	Y		CIS Infinity	
256	Ability to automatically distribute receipt of payments against the individual accounts on a "Master Account Bill" when payments are received.	M	Y		CIS Infinity	
257	Allows for credit balances, but does not apply penalties to such balances.	H	Y		CIS Infinity	
258	Reverses payment for invalid payments and optionally assesses a user-defined NSF charge.	H	Y		CIS Infinity	

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
Utility Billing

4.32 - Utility Billing			CIS Infinity			
Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
259	System provides the ability to fix accounts and adjust accounts by allowing for transfer of payments between accounts before and/or after a payment has been posted.	H	Y		CIS Infinity	
260	Ability to zero out credit balances for specific payment types (i.e. net metering which accumulates credits but at the end of the year needs to revert to 0)	H	Y		CIS Infinity	
261	Final Notice					
262	Generates final bill, once the date and final read is entered, at any point during the billing cycle.	H	Y		CIS Infinity	
263	Penalties/Interest					
264	Ability to automatically charge interest (percentage) on the delinquent balance (every month an interest charge is accrued)	H	Y		CIS Infinity	
265	Ability to override and/or credit penalty.	H	Y		CIS Infinity	
266	Ability for system to not apply a penalty to those customers that are current on their payment plans.	H	Y		CIS Infinity	
267	Ability to designate which charges are subject to penalty and/or interest	H	Y		CIS Infinity	
268	Ability to extend the number of days before an account is past due and/or penalty applied on specific accounts in account set up.	H	Y		CIS Infinity	
269	Delinquent/Past Due Notices/shut offs					
270	Ability to print delinquent/past due notices to customers. These are generated based on user defined minimum (based on a single past due bill and/or balance due) and number of days after payment was due, including applicable penalty amounts added.	H	Y		CIS Infinity	
271	Ability to automatically create a service order when the cut/shut-off criteria is met.	H	Y		CIS Infinity	
272	Ability to automatically apply a cut/shut off charge to the customer balance based on customer type when the cut/shut off user defined criteria is met.	H	Y		CIS Infinity	
273	Ability to automatically apply a reconnect charge to the customer based on customer type when the reconnect defined criteria is met.	H	Y		CIS Infinity	
274	Ability to send the delinquent files to a third party for collection	H	Y		CIS Infinity	
275	Ability to generate a shut/cut off report with customer address information, notes, and balance due for field crews on a hand held device.	H	Y		CIS Infinity	
276	System provides the ability to send delinquent/past due and cut off notices to the landlord if a tenant is responsible for the bill, and the landlord would like to be informed of non-payment.	H	Y		CIS Infinity	
277	Ability to automatically generate a delinquent/past due notice for multiple addresses (mailing, service, landlord, etc.).	H	Y		CIS Infinity	

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
Utility Billing

4.32 - Utility Billing				CIS Infinity		
Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
278	Optionally, be able to override the generation of the delinquent/past due notice with proper authority and reporting.	H	Y		CIS Infinity	
279	Ability for the delinquent notices to be driven off of the billing date	H	Y		CIS Infinity	
280	Ability to assign due dates to specific customers	H	Y		CIS Infinity	
281	Ability to recreate an image of the actual shut-off notice that the customer received when requested.	H	Y		CIS Infinity	
282	Payment Plans/Agreements					
283	Ability to process user-defined payment arrangements (i.e. payment plans) and flag if payments are not being met.	H	Y		CIS Infinity	
284	Customer Payment Plan Report - show summary of all payment plans that are delinquent, and the ability to generate delinquent payment plan letters as per user defined criteria.	H	Y		CIS Infinity	
285	Ability to request a payment plan from a customer web portal	M	F		CIS Infinity	
286	Ability for the payment agreement to override the calculated bill and print the correct amount due based on the agreement and due date as well as the total amount due.	M	Y		CIS Infinity	
287	Bankruptcy/foreclosure					
288	Ability to support bankruptcy/foreclosure processing that tracks pre-petition and post-petition information.	M	Y		CIS Infinity	
289	Lien Process					
290	Ability to support lien processing	H	Y		CIS Infinity	
291	Ability to put a lien on a property based on user defined balance amounts and due dates per service	H	Y		CIS Infinity	
292	Ability to add additional charges when a lien is placed	H	Y		CIS Infinity	
293	Ability to have multiple liens on a single property owner	H	Y		CIS Infinity	
294	Ability to send an email or letter to a property owner when a property will be placed on lien based on user defined date parameters.	H	Y		CIS Infinity	
295	Ability for the system to automatically print a claim of lien form when a property is liened and a release/satisfaction of lien form when it is paid	H	Y		CIS Infinity	
296	Ability to download a list of customer liens (customer information and amounts per service).	H	Y		CIS Infinity	
297	Write Offs					
298	Ability to perform write off processing for accounts finaled and uncollectable based on the final date	H	Y		CIS Infinity	
299	Ability to report customers that have outstanding transactions/bills that are based on a user defined date.	H	Y		CIS Infinity	
300	Ability to automatically write off balances (i.e. not entering adjustments one by one) in mass (based on a date) and have it update the GL correctly.	H	Y		CIS Infinity	
301	Utility Service/Work Orders					

**Priority**  
H - High | M - Medium | L - Low

**Availability**  
Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
Utility Billing

4.32 - Utility Billing

CIS Infinity

Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.

Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
302	System provides functionality to manage utility service orders associated with the utility customer account.	H	Y		CIS Infinity	
303	System has ability to enter customer account information and identify the related necessary service order activities:	-			CIS Infinity	
304	New Account	H	Y		CIS Infinity	
305	Cut/Shut offs	H	Y		CIS Infinity	
306	Special reads	H	Y		CIS Infinity	
307	Change or repair meter	H	Y		CIS Infinity	
308	Unusual Consumption check	H	Y		CIS Infinity	
309	Final reads	H	Y		CIS Infinity	
310	Unlimited user defined types	H	Y		CIS Infinity	
311	Ability to record results of meter inspections into the system.	H	Y		CIS Infinity	
312	Ability to store meter maintenance information.	H	Y		CIS Infinity	
313	Provides user-defined service order types.	H	Y		CIS Infinity	
314	System provides a central utility accounts with service order workflow to various Municipality staff based on customer's services.	H	Y		CIS Infinity	
315	Automatically creates service orders and manages scheduled, in-progress, and completed service orders.	H	Y		CIS Infinity	
316	Configurable listing of meter related information that can be designated as part of the service order.	H	Y		CIS Infinity	
317	Ability to mass enter meter reading and automatically close work orders during high volume of turnover (student rush - college move in/out)	H	Y		CIS Infinity	
318	Automatically prompts service order generation based on input from meter readers and automated meter reader error codes.	H	Y		CIS Infinity	
319	Ability to generate an automatic cut/shut-off service order, as defined by user, based on the cut/shut-off report.	H	Y		CIS Infinity	
320	Accesses and displays service order at any time regardless of status.	H	Y		CIS Infinity	
321	Automatically produces service orders containing information such as request date, person or department initiating request, job type, due date and comments.	H	Y		CIS Infinity	
322	Ability to inquire on all outstanding service orders. Provides the flexibility to list information by job type, request date or due date.	H	Y		CIS Infinity	
323	Ability to apply multiple miscellaneous charges to a single service order	H	Y		CIS Infinity	
324	When a payment is entered or imported, ability to compare it against all customers with a shutoff status and automatically create a service/work order to turn the meter back on.	H	Y		CIS Infinity	
325	Ability to consolidate all service orders for the same service address due on same day	M	N		CIS Infinity	
326	Voluntary Contribution Management					

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available



City of Columbia, MO - Columbia Financial Enterprise Resource System

Utility Billing

4.32 - Utility Billing				CIS Infinity		
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Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
327	Ability to track donor demographic information (name, address, etc.)	H	Y		CIS Infinity	
328	Ability to have user defined programs for contributions	H	Y		CIS Infinity	
329	Ability to designate a contribution to multiple programs	H	Y		CIS Infinity	
330	Ability to track the dates and amounts of the dollars coming in and dollars being distributed	H	Y		CIS Infinity	
331	Ability to report on contribution activity in detail and summary	H	Y		CIS Infinity	
332	Ability to set a minimum contribution amount	H	Y		CIS Infinity	
333	Analysis / Forecasting					
334	Ability to perform "what if" analysis/forecasting without impacting the data in the LIVE system.	H	Y		CIS Infinity	In test system
335	Ability to perform a "what if" analysis:	-			CIS Infinity	In test system
336	utilizing current rate information vs. proposed rate information	H	Y		CIS Infinity	
337	utilizing current consumption information	H	Y		CIS Infinity	
338	in a trial mode, prior to any updates to actual data,	H	Y		CIS Infinity	
339	save analyses to a separate file (i.e. exporting to Excel) or print out analysis,	H	Y		CIS Infinity	
340	on individual accounts and view the results at the account or department level.	H	Y		CIS Infinity	
341	allowing the user to adjust the rates on a configurable basis (i.e. amount, percent, etc.) for a particular service, customer type (commercial, residential, etc.), billing cycle, and/or route.	H	Y		CIS Infinity	
342	Ability to analyze KW consumption per customer for a user defined period of time (i.e. June - Sept.) and only report those customers who used a minimum amount per month (250 kw)	H	Y		CIS Infinity	
343	Ability to set multiple user defined from/to date parameters where customer energy efficiency improvements occurred to track and compare usage history	H	Y		CIS Infinity	
344	Ability to export user defined consumption/usage data for analysis	H	Y		CIS Infinity	
345	Principal Reports					
346	User friendly configurable systems with results exportable to Excel or other formats	H	Y		CIS Infinity	
347	Meter Size Report that identifies the number of meters by size.	H	Y		CIS Infinity	
348	Arrears Register All Cycles that shows the balances for 30, 60, 90 and 120+ on all accounts as of a user defined date.	H	Y		CIS Infinity	
349	Area Maintenance Meter Report that shows the customers and numbers that have irrigation meters.	H	Y		CIS Infinity	
350	Commercial Customer Report.	H	Y		CIS Infinity	
351	Inactive Account Report that lists all inactive accounts with account balances and ability to choose only account with balances other than 0.	H	Y		CIS Infinity	
352	Notes Report that shows the individual and group messages that will be displayed on the bills.	H	Y		CIS Infinity	

**Priority**

H - High | M - Medium | L - Low

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**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
Utility Billing

4.32 - Utility Billing				CIS Infinity		
Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
353	Customer Count Report that provides the number of customers by cycle, specific category(residential/commercial) and service (water, sewer, garbage).	H	Y		CIS Infinity	
354	Final Bill Listing Report.	H	Y		CIS Infinity	
355	Cycle Report, details an individual cycle, route and displays high balances.	H	Y		CIS Infinity	
356	Customer Report, details information regarding customer's account, name, address, account number, meter info, reads, rate codes, transaction history	H	Y		CIS Infinity	
357	Top 25 Users Report, detailing highest consumption accounts or highest consumption customers, providing account and usage information	H	Y		CIS Infinity	
358	Account Adjustment Detail Report (Rate Codes, Consumption Amt, Dollar Amt, Consumption charges broken out)	H	Y		CIS Infinity	
359	Service Order Report - to show, by specified date or type, orders to be done	H	Y		CIS Infinity	
360	Service Order Completion History - to provide reporting on data entered for all fields (including user defined) in the completion of the service order.	H	Y		CIS Infinity	
361	Consumption Report, by account, showing utility usage over a user-specified time interval. Flags abnormal usage (high/low/negative, etc.). Report should include meter information, consumption, new and previous readings, days between readings, customer account number and meter reader information.	H	Y		CIS Infinity	
362	Summary/Totals by customer type (residential/commercial/multi-family) by jurisdiction giving the total number of accounts, consumption and dollars billed for a given time period.	H	Y		CIS Infinity	
363	Revenue detail by customer type (residential/commercial/multi-family) by jurisdiction for each service (water, stormwater, irrigation, garbage, etc.) including the utility tax/surcharge for a given time period reporting billed amount.	H	Y		CIS Infinity	
364	Ability to determine by jurisdiction any amount subject to utility tax and/or surcharge and any exempt amounts.	H	Y		CIS Infinity	
365	Payment History, reporting bills and associated payments receipted by account. Shows dates, amounts, arrearages, penalties, account name, consumption, and address. Can be run for one account and allow user to view.	H	R	\$2,250.00	CIS Infinity	
366	Customer Statistics Report, presenting customer characteristics including number of customers, number of customers by meter size and billing category (customer type), usage and revenue by meter size, usage and revenue by billing type code, date range, district, book, and by a combination of the above.	H	R	\$4,500.00	CIS Infinity	

**Priority**  
H - High | M - Medium | L - Low

**Availability**  
Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**

**Utility Billing**

4.32 - Utility Billing				CIS Infinity		
Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
367	Customer Receivables Aging, presenting aging of user-defined criteria and / or general accounts receivable by customer indicating total amount due and amounts aged by 30, 60, 90 and 120+days, etc.	H	Y		CIS Infinity	
368	Cash Receipts Listing, reporting all amounts collected against customer accounts. Can be printed on demand with user-defined criteria prior to posting.	H	Y		CIS Infinity	
369	Cut/Shut Off Report, per cycle, showing accounts with one or more delinquent bills totaling over a user defined amount	H	Y		CIS Infinity	
370	Delinquent Notices Report, a listing generated based on user defined minimum and number of days after payment was due, including applicable penalty amounts added. Multiple types of notices capability (i.e. a first delinquent notice and a second delinquent notice with different parameters).	H	Y		CIS Infinity	
371	All master file information is accessible by the report writer.	H	Y		CIS Infinity	
372	Cut/Shut off Work/Service Orders.	H	Y		CIS Infinity	
373	Journal Entry Report, showing all J/E's over a user-defined period.	H	Y		CIS Infinity	
374	Billing Report, sorted on user-defined criteria, showing name, location address, current period charges by service, date billed, due date, readings, etc.	H	Y		CIS Infinity	
375	Outstanding Work Order Report, showing flags based on user-defined criteria	H	Y		CIS Infinity	
376	Billing Statistics (Rate Codes, Consumption Amt, Dollar Amt, Consumption & Demand charges broken out)	H	R	\$3,750.00	CIS Infinity	
377	Payment Detail (identify fund/account payment applied to)	H	Y		CIS Infinity	
378	Bill Calc (exception reporting of accounts to be billed)	H	Y		CIS Infinity	
379	Billing Register (dollar, by charge type and consumption detail of accounts to be billed)	H	Y		CIS Infinity	
380	Transaction Listing/Recap (for selected or all accounts for given date(s), and/or by transaction type).	H	Y		CIS Infinity	
381	Deposit on File report by date, printed the account status (active, final or closed/active)	H	Y		CIS Infinity	
382	Report: Security Deposits Refunded/Applied, with ability to run by specified date range.	H	Y		CIS Infinity	
383	Security Deposit activity for time period	H	Y		CIS Infinity	
384	Over Due Deposit Report	L	Y		CIS Infinity	
385	Surcharge billing & collection report	M	R	\$1,500.00	CIS Infinity	
386	System automatically generates a exception edit list when reads are applied to customer accounts (Meter Not Read Report).	H	Y		CIS Infinity	
387	Table Report (detail on services, rate codes, etc.) for given field	H	Y		CIS Infinity	
388	Audit Trail reports for all update processes	H	Y		CIS Infinity	

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
Utility Billing

4.32 - Utility Billing				CIS Infinity		
Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.						
Number	Application Requirements	Priority	Availability	Cost	Required Products	Comments
389	Customer List and labels based on customer initiation date to mail out new-comer packages	H	Y		CIS Infinity	
390	Ability to report for sewer or water only accounts	H	Y		CIS Infinity	
391	Ability to report active and/or inactive ACH customers based on status	M	Y		CIS Infinity	
392	Ability to pull information based on any field in the application and produce a customized letter (i.e. past due letters, voluntary contribution letters, landlord letters, etc.)	H	Y		CIS Infinity	
393	Ability to send all letters to a third party for printing	H	Y		CIS Infinity	
394	Ability to report the percentage of consumption verses base charges for commercial water accounts	H	Y		CIS Infinity	
395	Ability to report on any residential customer who's summer usage is 80% of the 3 month average (for rate increase adjustments)	H	R	\$3,000.00	CIS Infinity	
396	Ability to export a list of all customers that have a particular service code (i.e. trash, recycling, etc.) which includes the customer number, name and number of units to reconcile the trash and recycle bag voucher process that is mailed quarterly.	H	Y		CIS Infinity	
397	System reports revenue by rate class	H	Y		CIS Infinity	
398	Ability to run reports that provide for Missouri sales tax reporting	H	Y		CIS Infinity	
399	Ability to run a report for receivable account balance by utility (water, electric, sewer, solid waste, storm water, contributions), and also by transaction type (cash receipts, billing, adjustments).	H	Y		CIS Infinity	
400	Interfaces/Integrations					
401	Ability to update G/L with journal entries made in utility billing after proper approvals.	H	Y	\$5,400.00	CIS Infinity	Interface required
402	Ability to "drill down" from G/L to detail utility billing transaction data	H	M	\$8,250.00	CIS Infinity	
403	Interfaces with Cash Receipting.	H	Y		CIS Infinity	Cost included on interface tab of Price Form
404	System is synchronized with Municipality's existing ESRI GIS architecture	H	Y		CIS Infinity	Cost included on interface tab of Price Form
405	Ability to view the refuse routes from GIS ALL UTILITIES	H	Y		CIS Infinity	Cost included on interface tab of Price Form
406	Ability to integrate with the Master Address Module	H	Y		CIS Infinity	As it relates to Utility addresses. See Master address responses.
407	Ability to integrate with other modules such as Accounts Receivable to consolidate bills for customers that have utility and non-utility charges	M	N		CIS Infinity	
408	Ability to integrate with the Housing Management module for energy efficiency loans	M	Y	\$7,500.00	CIS Infinity	Interface required
409	Ability to integrate with the Housing Management module to pull principal, interest and loan balance and print on the utility bill as separate lines	H	Y	\$9,000.00	CIS Infinity	Interface required

**Priority**

H - High | M - Medium | L - Low

**Availability**

Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available



**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
Utility Billing

4.32 - Utility Billing				CIS Infinity		
Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
410	Ability to integrate with the Asset Management module for tracking and billing assets.	M	Y	\$11,250.00	CIS Infinity	Interface required
411	System integrates with Work Orders for any billing generated from the Work Order system (different than service orders within UB)	H	Y	\$13,500.00	CIS Infinity	Interface required
412	Ability to integrate with the Permits module and automatically update the heat source on the customer master account	M	Y	\$9,000.00	CIS Infinity	Interface required
413	Ability to interface with the postal service for address and move updates	M	Y		CIS Infinity	
414	Capability to interface with AMR systems to download routes to the PC and upload meter readings to the utility billing system.	H	Y		CIS Infinity	Configuration of standard batch meter reading interface.
415	Capability to interface with AMR systems to upload/download utility account information and changes to it (including directions, notes, description, meter location, route sequence)	H	Y		CIS Infinity	Configuration of standard batch meter reading interface.
416	Ability to upload the re-sequencing of routes from the AMR system to the Utility Billing system	H	Y		CIS Infinity	Configuration of standard batch meter reading interface.
417	Ability to import consumption from third party sources	M	Y		CIS Infinity	
418	System provides an integrated utility service order function that integrates to the utility customer account for customer service and charge/billing purposes	H	Y		CIS Infinity	
419	Ability to interface with OCR or bar code reading devices, including hand held scanners.	H	Y		CIS Infinity	Handled by interface between central cashiering software and OCR reader.
420	System allows for the import of electronic payment files from various sources (Please list the sources in the comments area)	H	Y		CIS Infinity	Configuration of any payment text file layout using Advanced Interface Manager (AIM) tool.
421	System integrates with the Customer Relationship Management (CRM) module for any citizen's request on UB service orders	H	Y	\$9,750.00	CIS Infinity	As part of interface to portal
422	System integrates with an IVR system	H	Y		CIS Infinity	
423	Ability to recognize the phone number of the customer and access the account directly for the following:	-	Y		CIS Infinity	As part on an IVR interface - Real time web services API
424	Payment updates	M	Y		CIS Infinity	
425	Phone notifications for high usage, high bill, return payments, delinquency, service order outcomes, receipt information, etc.	M	Y		CIS Infinity	Export files sent at IVR for outbound calling
426	Ability to integrate with a fixed base meter data collection system	M	Y		CIS Infinity	
427	Ability for field service personnel to access accounts for daily service via a web based tablet.	M	Y		CIS Infinity	Optional Infinity.Mobile
428	Ability for service orders to be sent to hand held devices for field workers	M	Y		CIS Infinity	
429	System integrates with the Municipality's web site to provide online functionality where customers (owners & tenants) can access information related to their account. Including:	-			Infinity.Link	
430	Consumption History	H	Y		Infinity.Link	

**Priority**  
H - High | M - Medium | L - Low

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**Availability**  
Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

**City of Columbia, MO - Columbia Financial Enterprise Resource System**  
**Utility Billing**

4.32 - Utility Billing				CIS Infinity		
Objective: To streamline the utility billing and collection processes and to ensure accurate bill generation, to increase efficiency in customer service processes, editing data, preparing bills, etc. Provide enhanced capability in reconciliation of revenues and receivables, and to provide metrics in the analysis of usage patterns. Accommodates time of use and real time rate design and billing.						
Number	Application Requirements	Priority	Availability	Cost	Required Product(s)	Comments
431	Billing History	H	Y		Infinity.Link	
432	Payment History	H	Y		Infinity.Link	
433	Current Bill	H	Y		Infinity.Link	
434	Ability to pay online	H	Y		Infinity.Link	
435	Ability to view and update all of the account information	H	Y		Infinity.Link	Key account information
436	Ability to update the credit card information	L	Y		Infinity.Link	
437	Ability to request a payment plan	M	Y		Infinity.Link	
438	Ability to request a payment date	M	Y		Infinity.Link	
439	Ability to calculate a partial monthly bill	M	M	\$9,000.00	Infinity.Link	
440	Ability to flag account for email notifications	M	Y		Infinity.Link	
441	Ability to opt out of paper notifications & receive them electronically only	M	Y		Infinity.Link	

**Priority**  
H - High | M - Medium | L - Low

**Availability**  
Y - Yes | R - Reporting Tool | T - Third Party  
M - Modification | F - Future | N - Not Available

## 8 Response to Technical Requirements

### 8.1 Technical Infrastructure

The Vendor shall provide the information described in this section. The information will be used in the evaluation process. Vendors should identify where conflicts may exist between their solution and current technologies being used in the City of Columbia as described in section 1.5.

In addition to providing responses to the following items, the Vendor must complete the **Technical Requirements Form** in section 6.6 of this RFP, and include it in this section of the response.

As the City of Columbia is contemplating a City of Columbia-hosted versus Vendor-hosted solution, aspects of the proposed solution to be provided should be clearly delineated where they vary between these two approaches in the sections below.

#### 1. Hardware and Storage Environment

a. Describe the proposed computer hardware and storage environment to support the system. In the event that there are multiple computer systems available, list all options. Indicate which is the preferred hardware platform and why. List the conditions in which the preferred hardware platform would change. A hardware configuration, which takes into account the size of the City, application modules, database size, and anticipated growth, must be provided.

CIS Infinity supports Windows server 2000-2008 R2.

In terms of the backend database CIS Infinity operates with either MS SQL or Oracle.

CIS Infinity supports the following database versions:

Oracle 9i-11g

SQL 2005-2008 R2

Initial allocation for disk space is highly dependent on customer count and years of history. A ballpark figure of 30GB of database storage is a start. Annual growth is also variable, depending on billing frequency and other parameters, but a value of 2GB a year is a good working number. These figures can be fine-tuned with more detailed information on billing frequency, account growth, and complexity of billing calculations.

#### **Hardware Recommendation**

*Application server configuration recommendation*

<b>General</b>	
Configuration	Intel Xeon Dual Processor Server
<b>Processor(s) (Intel)</b>	
Processor (CPU)	Dual Xeon 3.2 GHz/4MB KB

	processor with 533 MHz system bus
<b>Memory Standard</b>	
Memory (RAM)	8GB DDR SDRAM
<b>Network controller(s)</b>	
Gigabit Ethernet NIC PCI	Dual Intel Pro 1000MT Single port copper gigabit network adapters. (10/100/1000)
<b>Storage Controller(s)</b>	
SCSI Controller	PERC4/Di 2 internal channels - embedded RAID 128MB cache
<b>Storage</b>	
Hard Drives (Universal Hot Plug)	Two 18 GB 10,000 rpm Ultra 320 SCSI (RAID 1) Three 73 GB 10,000 rpm Ultra 320 SCSI (RAID 5)
<b>Backup</b>	
External Backup Unit	SDLT 100 GB External Backup Unit
<b>Industry Standards</b>	
Approved certifications (preferred)	ACPI 2.0 PCI 2.2 PXE WOL Physical Address Extension (PAE) Support
<b>Operating system</b>	Microsoft Windows 2003 Server Enterprise Edition, or higher.

*Database server configuration recommendation*

<b>Processors (CPU)</b>	Intel Xeon quad processor or equivalent
<b># CPU</b>	4+
<b>Memory (RAM)</b>	8+
<b>Hard drives</b>	SCSI or SATA
<b>CD/DVD ROM drive</b>	1
<b>Network card</b>	100MB+
<b>Database server software (MS SQL server)</b>	MSSQL server 2005, or 2008 Standard/enterprise 32/64 bit edition
<b>Database server software (Oracle server)</b>	Oracle server 9i, 10g, or 11g Standard/enterprise 32/64 bit edition (64 bit edition required in Windows OS)

<b>Operating system</b>	Windows 2003 enterprise 64bit edition , or Windows 2008 standard/enterprise 32/64 bit edition (64 bit edition required for Oracle server) - UNIX or LINUX OS can also be used for Oracle
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*Infinity.Link Server*

General purpose Web Server (Quad Xeon)

16 GB Memory (RAM)

120 GB of available storage space

**Hardware Max Specs:**

<b>General</b>	
Configuration	Intel Xeon Quad-Core Server
<b>Architecture</b>	
Form factor	Rack Mountable or Tower Design
<b>Processor(s) (Intel)</b>	
Processor (CPU)	Quad Core Xeon 3.0 GHz/12 MB processors
<b>Memory Standard</b>	
Cache memory	12 MB cache per processor
Memory (RAM)	16GB ECC DDR3 (up to 192GB DDR3 800MHz,1066MHz, or 1333Mhz)
<b>Network controller(s)</b>	
Gigabit Ethernet NIC PCI	Dual port Gigabit network adapters with failover and load balancing capabilities.
<b>Storage Controller(s)</b>	
RAID Controller	PERC H200/H700 (6Gb/s) 2 internal channels, 2 external channels, 256/512MB battery backed cache
Internal Storage (Bays)	2.5" or 3.5" Hard Drive Option
<b>Storage</b>	
Optical Drive	DVD-ROM Drive 24x
Hard Drives (Hot-plug drive options)	<ul style="list-style-type: none"> <li>• 3.5" SATA (7.2K): 80 GB,160GB, 250GB, 500GB, 750GB, 1TB</li> <li>• 2.5" SATA II (7.2K RPM): 80GB, 120GB, 160GB, 250GB</li> <li>• 3.5" SAS (15K): 73GB, 146GB, 300GB , 450GB</li> <li>• 2.5" SAS (10K RPM): 36GB, 73GB, 146GB, 147GB, 300GB</li> </ul>

<b>Redundancy</b>	
Cooling	Hot Plug Redundant fan
Power Supply	Two Hot plug redundant PSUs
<b>Operating system</b>	Microsoft Windows 2003 Server Enterprise or Higher

**Software**

Microsoft Internet Information Server (IIS)

Microsoft dot.NET Framework Release 2.0.x Installed and Registered

SSL certificate (security purposes) - Optional

**Database Engines supported**

MS SQL 2005 or higher (Standard or Enterprise)

**Interconnectivity**

Internet Uplink

Server available on the internet

Public DNS registry

**b. What system architecture do you propose? Describe the number and type of: application servers, database server(s), and development and test environments. Describe your proposal's technical architecture (preferably using a PowerPoint or Visio diagram). This should show components such as the database server, applications server, reporting server, test/training server, firewall(s), web server(s), web browser, minimum workstation requirements, remote access, wireless connectivity, network connectivity to LANs and WAN, etc. Describe any potential use of virtual server technologies (e.g. Microsoft Virtual Server, VMware) and application accelerators and note what Vendors you partner with or recommend and/or support.**

Our recommendation is to have separate database and application server for each CIS Infinity system. Other applications may reside on both the database server as well as the application server.

However, the software can be installed on a single server and we have several clients that do so.

A web server is required for Infinity.Link.

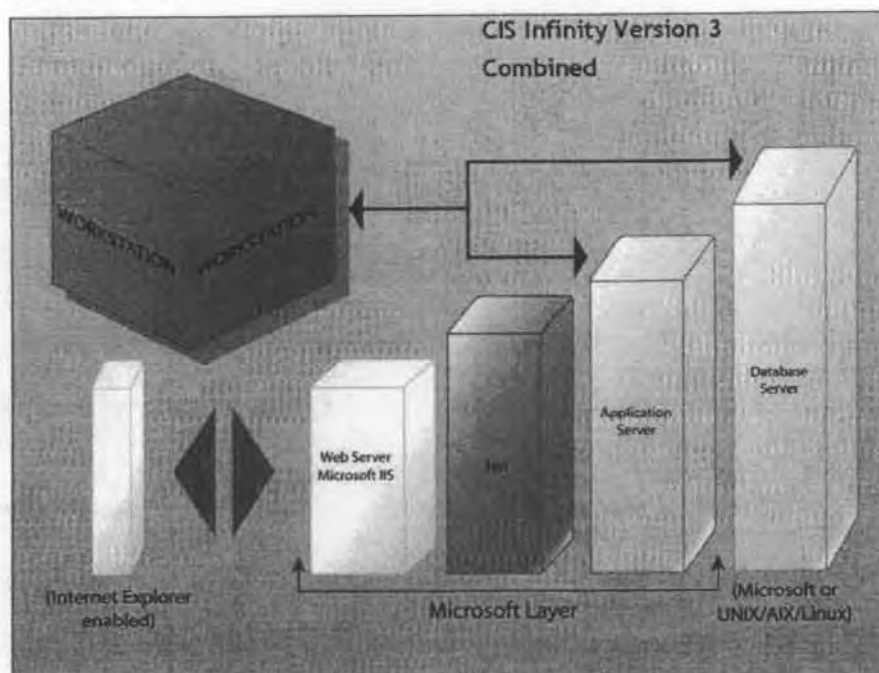
Citrix is required if there are remote offices.

Your CIS Infinity installation allows you to create as many environments as required and includes a complete, fully-functional and distinct test system that allows you to support testing of customization, new releases and software upgrades. To achieve this, a testing database is defined on the database server, and a testing environment is created on the application server.



d. Describe your proposal's information architecture/model (preferably using a PowerPoint or Visio diagram). This should depict data models, taxonomy, data elements, coding structures, a process for standardizing on a particular coding structure, data definitions (employees, Vendors, invoices, etc.)

CIS Infinity, Version 3 is a client/server application. It is architected using an N-tier approach, with a clear separation between the data access layer, the business process layer and the presentation/user interface layer. CIS Infinity and the other products in the Infinity product suite are primarily built using Microsoft programming tools, in particular .NET.





## 6.6 Vendor Questionnaire - Technical Requirements Form

1.	What database are you proposing?
	<p>CIS Infinity operates with either MS SQL or Oracle as a backend database.</p> <p>CIS Infinity supports the following database versions:</p> <p>SQL 2005-2008 R2</p> <p>Oracle 9i-11g</p>
2.	Does your proposal contain or envision the use of a data warehouse? If yes, describe your data warehousing capabilities and architecture.
	<p>No data warehouse is proposed.</p>
3.	Describe the system administration tools that are used to manage the application including any data archival tools, tools for managing application updates, online help management tools, etc.
	<p>Data archiving is a function of the database. Typically data is not archived/purged. An executable is provided for each update along with build logs. Updates are cumulative, thereby allowing the City to skip updates if so desired.</p> <p>Dynamic hyperlinks to City specific help documentation can be placed anywhere within the main customer inquiry form to walk users through City specific processes. Standard help text is provided with the application and updated with every release</p> <p>For upgrades, the client is notified of its availability via email. The client would then download the build from the Advanced FTP web site. After the download is complete the client, via CustomerWise, requests a date and time for the build to be applied to the test or production system since exclusive access to the system is required. Then Advanced will apply the build and the upgrade is complete.</p> <p>Minor upgrades and patches do not require vendor intervention. The majority of our clients handle these items on their own. However, Advanced is always available to assist the client if issues arise. To install a minor upgrade, the client downloads an upgrade application from the Advanced FTP site. Clients can then apply the upgrade applications to each of their environments (test and production) independently. It is a single step-upgrade with the Administrator confirming and then reconfirming they wish to upgrade the environment. Once the confirmation is completed, the upgrade is executed without further user intervention.</p> <p>On our client portal <a href="http://www.mycisinfinity.com">www.mycisinfinity.com</a> we provide Entity Relationship Diagrams and a Data Dictionary, which form an important part of the Advanced plan for increased interoperability and extensibility.</p>

4.	Describe the network management systems that either your system uses, interoperates/integrates with, or you recommend. Please specify.																																				
	CIS Infinity supports Active Directory.																																				
5.	Describe what, if any, footprint (e.g. local software artifacts such as DLLs) exists on the user's desktop.																																				
	The CIS Infinity Client must be installed to interact with the data on the CIS Infinity Application Server.																																				
6.	Describe the minimum hardware, software, storage, memory, operating system and other requirements for desktop computers to access the application such that the City of Columbia can determine the extent to which existing computers must be upgraded or replaced.																																				
	<p>The following outlines what is required to run CIS Infinity on client desktops for primary and secondary/casual users.</p> <p><i>CIS Infinity Desktop - Primary User</i></p> <table border="1"> <tr> <td colspan="2"><b>Processor(s) (Intel)</b></td></tr> <tr> <td>Processor (CPU)</td><td>Intel® Xeon® Dual Core</td></tr> <tr> <td colspan="2"><b>Memory Standard</b></td></tr> <tr> <td>Memory (RAM)</td><td>6GB DDR3 SDRAM at 1333Mhz - 6 DIMMS</td></tr> <tr> <td colspan="2"><b>Storage</b></td></tr> <tr> <td>Hard Drives</td><td>100 GB IDE Hard Drive 7200 rpm</td></tr> <tr> <td colspan="2"><b>Communications</b></td></tr> <tr> <td>Fast Ethernet NIC</td><td>Integrated Gigabit Ethernet NIC PCI 10/100/1000</td></tr> <tr> <td><b>Operating system</b></td><td>Microsoft Windows XP Professional, Vista or 7 Professional (32 or 64 bit)</td></tr> <tr> <td colspan="2"><b>Applications</b></td></tr> <tr> <td>Installed applications</td><td>Microsoft Office 2003 Professional or higher</td></tr> </table> <p><i>CIS Infinity Desktop - Casual User</i></p> <table border="1"> <tr> <td colspan="2"><b>Processor(s) (Intel)</b></td></tr> <tr> <td>Processor (CPU)</td><td>Intel® Xeon®</td></tr> <tr> <td colspan="2"><b>Memory Standard</b></td></tr> <tr> <td>Memory (RAM)</td><td>2 GB DDR SDRAM</td></tr> <tr> <td colspan="2"><b>Storage</b></td></tr> <tr> <td>Hard Drives</td><td>60 GB IDE Hard Drive 5200 rpm</td></tr> <tr> <td colspan="2"><b>Communications</b></td></tr> </table>	<b>Processor(s) (Intel)</b>		Processor (CPU)	Intel® Xeon® Dual Core	<b>Memory Standard</b>		Memory (RAM)	6GB DDR3 SDRAM at 1333Mhz - 6 DIMMS	<b>Storage</b>		Hard Drives	100 GB IDE Hard Drive 7200 rpm	<b>Communications</b>		Fast Ethernet NIC	Integrated Gigabit Ethernet NIC PCI 10/100/1000	<b>Operating system</b>	Microsoft Windows XP Professional, Vista or 7 Professional (32 or 64 bit)	<b>Applications</b>		Installed applications	Microsoft Office 2003 Professional or higher	<b>Processor(s) (Intel)</b>		Processor (CPU)	Intel® Xeon®	<b>Memory Standard</b>		Memory (RAM)	2 GB DDR SDRAM	<b>Storage</b>		Hard Drives	60 GB IDE Hard Drive 5200 rpm	<b>Communications</b>	
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	Fast Ethernet NIC PCI	Integrated Fast Ethernet NIC PCI 10/100
	<b>Operating system</b>	Microsoft Windows XP Professional, Vista or 7 Professional (32 or 64 bit)
	<b>Applications</b>	
	Installed applications	Microsoft Office 2003 Professional or higher
<b>System Performance</b>		
1.	System response time must not impede the ability for departmental staff to perform their required job functions using the system. Will your system be available 99.5% of the time, except for planned downtime?	
	<p>Periodic system updates from Advanced may require a brief period of downtime in order to add new tables and/or fields to the database in order to support new functionality. It is at the discretion of the utility as to when they want to run these updates. Backup routines can be scheduled using tools within SQL Server but do not require downtime. Most customers schedule these events to occur either in the evening or over the weekend along with the rest of their required network maintenance. With respect to availability, as this is a mission critical system, CIS Infinity is up and available all the time. We have customers with over 250,000 meters that have CIS Infinity available to them 100% of the time.</p>	
2.	Can you guarantee a 3-second maximum response time?	
	<p>The estimated transaction processing time depends entirely on the process being run. Typical processing time for a bill calculation ranges between .5 and 1 second, for example, depending on the number and complexity of billing calculations being performed.</p> <p>CIS Infinity uses state-of-the-art technology and allows for multithreading/processing to maximize performance.</p>	
3.	What are your guarantees on system performance?	
	<p>Advanced will guarantee response times in the contract provided they are linked to specific hardware and network specifications. Should Advanced be selected, Advanced would work with the City and your hardware vendor of choice to ensure a hardware platform that meets your performance requirements.</p> <p>Typically during the contract discussions, response times are linked directly to several critical processes, such as account inquiry, on a step by step basis and expected response times.</p>	
<b>Security</b>		

1.	Describe the identification and authorization capabilities of your proposed solution for users.
	<p>Security setup is similar to Microsoft security. System administrators create user IDs and users can belong to one or more groups. Objects in CIS Infinity can be restricted by user ID, or by group.</p> <p>The first level of security in CIS Infinity is the ability to completely configure the user's menus and items on menus. If you do not wish to give a user access to a form you can simply not place the form on the user's menu.</p> <p>System Administrators can pre-define a series of menus that are common, and those menus can be placed on the users menu. Each user's menu does not have to be defined from scratch and could simply have the pre-defined menus on them.</p> <p>Each item that can be added to the users menu comes with a pre-defined description from Advanced, these descriptions can be customized by the System Administrators to suit your needs and terminology.</p> <p>Security in CIS Infinity is object based rather than field and table based. This allows system administrators to secure not only secure fields, but objects such as buttons and pick lists. You can secure anything you see on the forms of CIS Infinity rather than just restrict users' access to fields or tables.</p>
2.	Describe how your system interoperates with Active Directory.
	<p>CIS Infinity can integrate with Active Directory/LDAP for authentication and single sign-on capabilities.</p>
3.	Describe the security audit capabilities of your proposed solution.
	<p>The CIS Infinity security model is based on objects – a security rule can be applied to any object in the application, from individual fields and menu items to entire forms.</p> <p>CIS Infinity also comes with an audit report where a report can be generated to view all changes in a certain date range, by a specific user, or to a specific table or field.</p>
4.	What functions does your proposed system have to protect the privacy of information designated "private" (e.g. personally identifiable, SSN, credit card, ACH, HIPAA, etc.) that it processes or stores?
	<p>By default, CIS Infinity encrypts sensitive fields such as SSN, DL, banking information, etc. Through configuration, the City can determine which fields they would like to encrypt.</p> <p>Further, CIS Infinity is Red Flag as well as PA-DSS compliant (PCI certified). Advanced</p>

	and CIS Infinity are fully certified through the PCI Security Standards Council Quality Assurance Program. Our certification is listed on their website under the List of Validated Payment Applications.
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## **8.2 Vendor Hosted Option**

Advanced is proposing to implement CIS Infinity as a Client-hosted solution for the City.