

THIS MASTER PROFESSIONAL SERVICES AGREEMENT (“Agreement”) is made as of the ____ day of _____, 2022 (the “**Effective Date**”).

BETWEEN:

**ADVANCED UTILITY SYSTEMS,
A DIVISION OF N. HARRIS COMPUTER CORPORATION**

(“HARRIS”)

- and -

LAKE COUNTY (“Organization”)

WHEREAS:

- a) The Organization wishes retain Harris to perform certain professional services as set out herein; and
- b) Harris has agreed to provide such services on the terms and conditions set out in this Agreement.

NOW THEREFORE, in consideration of the mutual covenants set out in this Agreement and for other good and valuable consideration (the receipt and sufficiency of which is hereby acknowledged), the parties agree as follows:

1. Term. This Agreement shall commence on the Effective Date and shall continue for a period of one (1) year (the “**Initial Term**”).

2. Services.

- a) **Statement(s) of Work.** The parties adopt as an initial Statement of Work the portion of Harris’s RFP response set forth in Schedule A, with the following caveats: (1) the solution Harris shall supply shall be hosted (i.e., cloud-based, and not the on-premises alternative contemplated in the RFP); (2) the 5-year data conversion is superseded by the response in the “Technical Specifications Software Matrix” at #28, referencing historical data going back 10 years; (3) at this time, Organization is **not** opting for the “Infinity.Link Enterprise” option.

If additional Statements of Work become necessary, they shall be attached hereto as Schedule “B”, Schedule “C”, and so on, as required by Organization and agreed to by the parties. Each Statement of Work will be subject to the terms and conditions of this

Agreement. In the event of conflict between this Agreement and any Statement of Work executed by the parties, the terms of this Agreement shall prevail.

- b) **Harris's Obligations.** Harris shall use commercially reasonable efforts to provide the professional services set out in the applicable Statement of Work (the "**Services**").
- c) **Organization's Obligations.** To enable Harris to perform the Services, Organization agrees to provide the following to Harris:
 - i. Information relative to Organization's hardware and software required for Harris to provide its Services;
 - ii. Access to and use of Organization's facilities, equipment, hardware and software required by Harris to perform the Services;
 - iii. Personnel and assistance as is reasonably required to enable Harris to perform the Services; and
 - iv. A representative with authority to approve the plans and deliverables described in the applicable Statement of Work if so required.
- d) **Ownership.** Organization may retain a PDF copy of any reports or other deliverables provided by Harris to Organization as part of the Services ("**Deliverables**"), however Harris is and shall remain the owner of all copyright, patents, trademarks, trade secrets and other intellectual property rights.

3. **Fees.**

- a) **Fees.** In consideration of providing the Services, Organization agrees to pay to Harris the fees set out in the table set forth at Exhibit 1, titled "Payment Milestones," (the "**Fees**").
- b) **Invoices.** During the term of this Agreement, Harris shall deliver invoices to Organization. Unless otherwise stated in the applicable Statement of Work, each invoice delivered to Organization by Harris shall be due and payable upon receipt thereof by Organization, but Harris agrees that all payments shall be made in accordance with the Illinois Local Government Prompt Payment Act, which generally requires approval of a vendor's bill within 30 days of receiving the invoice for the services contained in it, and payment within an additional 30 days (50 ILCS 505/1 *et seq.*).
- a) **Taxes.** The Fees are exclusive of taxes. Organization agrees to pay all applicable sales and use taxes, if any (excluding taxes on HARRIS's net income) ("**Taxes**") unless it provides HARRIS with a tax exemption certificate acceptable to the applicable taxing authorities.

4. **Warranty**

Warranty. Harris warrants that the Services will be performed in a professional and diligent manner by personnel who are competent in performing their individual tasks.

DISCLAIMER. TO THE GREATEST EXTENT PERMITTED BY LAW, EXCEPT FOR THE LIMITED WARRANTY PROVIDED IN SECTION 4(a), THE SERVICES ARE PROVIDED TO THE ORGANIZATION “AS IS” AND THERE ARE NO WARRANTIES, REPRESENTATIONS OR CONDITIONS, EXPRESSED OR IMPLIED, WRITTEN OR ORAL, ARISING BY STATUTE, OPERATION OF LAW, COURSE OF DEALING, USAGE OF TRADE OR OTHERWISE, REGARDING THEM OR ANY OTHER PRODUCT, SERVICE OR MATERIAL PROVIDED HEREUNDER OR IN CONNECTION HERewith.

HARRIS DISCLAIMS ANY IMPLIED WARRANTIES OR CONDITIONS REGARDING THE SERVICES AND ANY MATERIALS PROVIDED HEREUNDER OR IN CONNECTION HERewith, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABLE QUALITY, MERCHANTABILITY, DURABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE OR NON-INFRINGEMENT.

HARRIS DOES NOT REPRESENT OR WARRANT THAT THE SERVICES SHALL MEET ANY OR ALL OF THE ORGANIZATION’S PARTICULAR REQUIREMENTS. NO AGREEMENTS VARYING OR EXTENDING ANY EXPRESS WARRANTIES SET FORTH IN THIS AGREEMENT SHALL BE BINDING ON EITHER PARTY UNLESS IN WRITING AND SIGNED BY AN AUTHORIZED SIGNING OFFICER OF HARRIS.

5. Termination

a) **Termination.** This Agreement may be terminated as follows:

- i. In addition to any other rights and remedies available to it, either party may immediately terminate this Agreement in the event of material breach by the other party of its obligations and that breach is not cured within thirty (30) days of receipt of written notice to that effect;
- ii. Either party may terminate this Agreement effective immediately upon written notice to the other party if the other party: (i) becomes insolvent; (ii) becomes the subject of any proceeding under any bankruptcy, insolvency or liquidation law, whether domestic or foreign, and whether voluntary or involuntary, which is not resolved favourably to the subject party within ninety (90) days of commencement thereof; or (iii) becomes subject to property seizure under court order, court injunction or other court order which has a material adverse effect on its ability to perform hereunder.

b) **Effects of Termination.** In the event of termination of this Agreement Organization shall immediately pay all outstanding Fees and other amounts owing to HARRIS under this Agreement.

6. Limitation of Liability

To the greatest extent permitted by applicable law, Harris, its affiliates, and each of their respective directors, officers, employees and shareholders’ entire liability and Organization’s exclusive remedy with respect to the services and any other products, materials supplied by Harris in

connection with this Agreement for damages for any cause and regardless of the cause of action, whether in contract or in tort, including fundamental breach, negligence, strict liability or otherwise, shall not exceed in the aggregate an amount that is equal to the fees paid to Harris by Organization pursuant to the relevant statement of work.

In no event shall Harris, its affiliates and each of their respective directors, officers, employees and shareholders, be liable for any consequential, incidental, indirect, exemplary, punitive, or special damages whatsoever, including but not limited to for lost revenue or loss of profits, loss of business, loss of data, failure to realize expected savings, or cost of substitute goods or services arising out of or in connection with this Agreement, even if it has been advised of the likelihood of the occurrence of such loss or damage or such loss or damage is foreseeable and notwithstanding any failure of essential purpose of any limited remedy.

7. Confidential Information

a) **Definition.** Each party acknowledges that it may receive Confidential Information from the other party or otherwise in connection with this Agreement. “**Confidential Information**” means all information or material that the disclosing party treats as confidential and any information relating to third parties that the disclosing party has an obligation to treat as confidential, which is disclosed by or obtained by a party in connection with this Agreement, whether such information is in oral, written, graphic or electronic form, which: is (A) marked "Confidential," "Restricted," or "Proprietary Information" or other similar marking, (B) known by the parties to be considered confidential or proprietary, or (C) which should be known or understood to be confidential or proprietary by an individual exercising reasonable commercial judgment in the circumstances. Confidential Information does not include information to the extent that such information: (i) is or becomes generally known to the public by any means other than a breach of the obligations of a receiving party hereunder; (ii) was previously known to the receiving party as evidenced by its written records; (iii) is rightly received by the receiving party from a third party who is not under an obligation of confidentiality; or (iv) is independently developed by the receiving party without reference to or use of the other party's Confidential Information which such independent development can be established by evidence that would be acceptable to a court of competent jurisdiction.

b) **Confidentiality Obligations.** Each of the parties agrees:

- a. to maintain the Confidential Information of the other party in confidence and to take all reasonable steps, which shall be no less than those steps it takes to protect its own confidential and proprietary information, to protect the Confidential Information of the other party from unauthorized use, disclosure, copying or publication;
- b. not to use the Confidential Information of the other party other than in the course of exercising its rights or performing its obligations under this Agreement;
- c. not to disclose or release such Confidential Information except to the extent required by applicable law or during the course of or in connection with any litigation, arbitration or other proceeding based upon or in connection with the subject matter of this Agreement, provided that the receiving party shall first give reasonable notice to the disclosing party

prior to such disclosure so that the disclosing party may obtain a protective order or equivalent and provided that the receiving party shall comply with any such protective order or equivalent;

- d. not to disclose or release such Confidential Information to any third person without the prior written consent of the disclosing party, except for authorized employees or agents of the receiving party who have a need to know such information for the purpose of performance under this Agreement and exercising its rights under this Agreement, and who are bound by confidentiality obligations at least as protective of the disclosing party's Confidential Information as this Agreement; and
- e. to take such actions as may be reasonably necessary to enforce its agreements with its employees and agents, including commencing legal proceedings.

Notwithstanding the foregoing: Both parties acknowledge that documents and dealings related to this Agreement are subject to the Illinois Open Meetings Act (5 ILCS 120/1 *et seq.*) and the Illinois Freedom of Information Act (5 ILCS 140/1 *et seq.*), and that any documents Harris intends to protect from disclosure must be marked as such. Harris agrees to assist Organization in producing redacted copies of documents for disclosure, where necessary.

8. General

- a) **Mediation.** The parties agree to submit any claim, controversy or dispute arising out of or relating to this Agreement or the relationship created by this Agreement to non-binding mediation before bringing a claim, controversy or dispute in a court or before any other tribunal. The mediation is to be conducted by either an individual mediator or a mediator appointed by mediation services mutually agreeable to the parties. Such mediator shall be knowledgeable in software system agreements. The mediation shall take place at a time and location which is also mutually agreeable; provided; however, in no event shall the mediation occur later than ninety (90) days after either party notifies the other of its desire to have a dispute be placed before a mediator. The costs and expenses of mediation, including compensation and expenses of the mediator (and except for the attorney's fees incurred by either party), is to be shared by the parties equally. If the parties are unable to resolve the claim, controversy or dispute within ninety (90) days after the date either party provides the other notice of mediation, then either party may bring and initiate a legal proceeding to resolve the claim, controversy or dispute unless the time period is extended by a written agreement of the parties. Nothing in this Section shall inhibit a party's right to seek injunctive relief at any time.
- b) **Notice.** Any notice required or permitted to be given to any party to this Agreement shall be given in writing and shall be delivered personally, or mailed by prepaid registered post or courier to the appropriate address set out below. Any such notice shall be conclusively deemed to have been given and received on the day on which it is delivered or transmitted, if personally delivered or, if mailed, on the third business day following the date of mailing, and addressed, in the case of HARRIS, to:

N. HARRIS COMPUTER CORPORATION

2235 Sheppard Avenue East, Suite 1400,
Toronto, Ontario M2J 5B5
Attention: Hari Subramaniam
Telephone: 416-496-0149
Email: hsubramaniam@advancedutility.com

and in the case of Organization, to:

Lake County

650 W Winchester Rd, Libertyville, IL 60048
Libertyville, Illinois 60048
Attention: Joel Sensenig
Telephone: 847-377-7124
jsensenig@lakecountyil.gov

Each party may change its particulars respecting notice, by issuing notice to the other party in the manner described in this Section 7(b).

- c) **Assignment.** Neither party may assign any of its rights or duties under this Agreement without the prior written consent of the other party, such consent not to be unreasonably withheld, except that either party may assign to an affiliate of such party or to successor entity in the event of its dissolution, acquisition, sale of substantially all of its assets, merger or other change in legal status. The Agreement shall inure to the benefit of and be binding upon the parties to this Agreement and their respective successors and permitted assigns.
- d) **Entire Agreement.** This Agreement shall constitute the entire agreement between the parties hereto with respect to the matters covered herein. No other understandings, agreements, representations, warranties or other matters, oral or written, purportedly agreed to or represented by or on behalf of Harris by any of its employees or agents, or contained in any sales materials or brochures, shall be deemed to bind the parties hereto with respect to the subject matter hereof. Organization acknowledges that it is entering into this Agreement solely on the basis of the representations contained herein. The terms of this Agreement may not be changed except by an amendment signed by an authorized representative of each party. No provisions in any purchase orders, or in any other documentation employed by or on behalf of the Organization in connection with this Agreement, regardless of the date of such documentation, will affect the terms of this Agreement, even if such document is accepted by Harris, with such provisions being deemed deleted.
- e) **Governing Law; Venue.** The laws of Illinois, without giving effect to principles of conflict of laws, govern all matters arising under this Agreement, including all tort claims, and all lawsuits shall be brought only in the federal court for the Northern District of Illinois;

provided, however, that such actions shall be brought in the Nineteenth Judicial Circuit of Lake County, Illinois if subject matter jurisdiction is improper in said Federal Court.

f) Omitted.

- g) Severability.** The invalidity or unenforceability of any provision or covenant contained in this Agreement shall not affect the validity or enforceability of any other provision or covenant herein contained and any such invalid provision or covenant shall be deemed modified to the extent necessary in order to render such provision valid and enforceable; if such provision may not be so saved, it shall be severed and the remainder of this Agreement shall remain in full force and effect.
- h) Waiver.** No waiver of any breach of any provision of this Agreement shall constitute a waiver of any prior, concurrent, or subsequent breach of the same or any other provisions hereof, and no waiver shall be effective unless made in writing and signed by an authorized representative of the waiving party.
- i) Counterparts.** This Agreement may be executed in counterparts (whether by facsimile or PDF signature or otherwise), each of which when so executed shall constitute an original and all of which together shall constitute one and the same instrument.
- j) Relationship.** The parties are and shall at all times remain, independent contractors in the performance of this Agreement and nothing herein shall be deemed to create a joint venture, partnership or agency relationship between the parties. Neither party will have the power to bind the other party or to contract in the name of or create any liability against the other party in any way for any purpose. Neither party will be responsible for the acts or defaults of the other party or of those for whom the other party is in law responsible.
- k) Allocation of Risk.** Organization acknowledges that the limited warranties, disclaimers and limitations of liability contained in this Agreement are fundamental elements of the basis of bargain between Organization and Harris and set forth an allocation of risk reflected in the fees and payments due hereunder.
- l) Force Majeure.** No default, delay or failure to perform on the part of Harris shall be considered a breach of this Agreement where such default, delay or failure is due to a force majeure or to circumstances beyond its control. Such circumstances will include, without limitation, strikes, riots, civil disturbances, actions or inactions concerning government authorities, epidemics, war, terrorist acts, embargoes, severe weather, fire, earthquakes, acts of God or the public enemy or default of a common carrier or other disasters or events.
- m) Survival.** The following sections and articles shall survive the termination or expiration of this Agreement: Sections 2(c), 3, 4, 5(b), 6-8 and any other provisions which are required to ensure that the parties fully exercise their rights and obligations hereunder.

IN WITNESS WHEREOF the parties hereto have duly executed this Agreement to be effective as of the Effective Date.

N. HARRIS COMPUTER CORPORATION

By: _____

Name: _____

Title: _____

LAKE COUNTY

By: _____

Name: _____

Title: _____

Schedule A: Statement of Work

C. Scope of Services

This section of the proposal should include a general discussion of the Proposer's overall understanding of the project and the scope of work and technical specification included as Exhibit A. For each task that is identified in the scope of services please identify your firm's approach and response to address the desired service outlined.

The project is defined as the upgrade of CIS Infinity Version 4, by Advanced Lake County. The current CIS Infinity instance will be upgraded to Version 4 and will replace the current version of CIS Infinity.

The project encompasses all aspects of the County's CIS Infinity upgrade, including but not limited to project management, requirements gathering, data integrity and clean up, data conversion, configuration including interfaces, and training.

Advanced will provide the following Version 4 upgrade services to the County:

- Project Management
- Functional Discovery Workshop
- Configuration of Infinity.Link Version 3 to integrate with CIS Infinity Version 4
- V3 Data Integrity Check and Clean up in the County's test environment
- Conversion of data from CIS Infinity Version 3 to CIS Infinity Version 4
 - Note: Advanced recommends a 5 yr cut off for data to be converted to V4, but there is a hard cut off for any transactional history created before the initial V3 System Implementation as it is not compatible with the V4 system structure.
- V4 Data Integrity Check and Clean up in the County's test environment
- Data refreshes (Maximum of 6)
- Conversion of current Bill Print(s)/Notice(s)/Receipts formats from Crystal Reports XI to Crystal Reports 2013
- Conversion of Standard (canned) reports format from Crystal Reports XI to Crystal Reports 2013 (non-standard reports and custom reports are not included)
- Remote web based training
- Training for End Users
- Conversion of existing interfaces
- Conversion of existing Custom Reports
- Conversion of required billing formulas
- Technical Support

The utility billing application under consideration and review must provide functionality in the following business areas:

- **Utility Billing and Collections**

With CIS Infinity, Version 4 you can implement a wide variety of Billing processes, which can be complex (e.g. consolidated bills for large industrial or government clients, master and sub-meter billing, interval meter and various meter reading billing) or simplified (e.g. bill cancel and re-bill).

Real time transactions eliminate the need for day-end processing, while bill registers are archived electronically, and there is greater precision for exception checking, usage quoting, and estimating based on unlimited reading history.

The integration of the customer information and billing components of CIS Infinity makes processing adjustments, estimates and final bills quick and easy. You can define your own exception parameters and processes, make special discount and credit arrangements for individual customers, implement alternative tax rates and apply multiple taxes.

Cycle, date and event driven billing schedules are also supported by CIS Infinity. Time and volume based consumption are tracked and recorded through interval meters, while consumption validation and estimation algorithms (e.g. the amount of last bill, the average of the last six months, year, or two years, etc..) are handled through customer-based exception checking and billing.

Customer/Account: 00529739 / 0296950 - Bill Batch 2604 - Bill Details

First Previous Next Last Add Edit Delete Refresh Filter Search AccountView Actions Print Batch Actions Misc Reports Help

Customer: 00529739
Account: 0296950
Name: DANICA PATRICK
3 SMITH Street
TORONTO, ON 01234

Balance: (\$75.00)
Deposit: \$0.00
Last Bill: \$65.06 Due 12/26/2011
Plan: None
Next:

Account Status: Active
Ownership: Owner
Good
400 (TB) / Book 400

Account Type: Residential
Move In: Moved in 6/1/2011
Collection Status: Collections Okay
Meter Call Number: 014

Account Data Details Charges Flat / Rental Point of Sale Bill Details Bill Messages List

Bill Date: 09/18/2018
Due Date: 10/08/2018
Bill Number: 4681768

Bill Type: Cycle Billing
Bill Status: No-bill Hold
Draw Final Bill Amount ☐
Deposit ☐

Exception? ☒
Ignore Exceptions? ☐
No Bill ☐
Report? ☐

Service Order # 0

Services

Record 1 of 3

Service	Previous Read Date	Reading Date	Days	Bill Code	No Bill	Minimum Bill	Service Multiplier 1	Service Multiplier 2	Discount Cc
Solid Waste Com	12/1/2011	9/18/2019	2848	R01 - OCN - MF 1 x 1 PU Per Week 35g	<input type="checkbox"/>	<input type="checkbox"/>	0.000000	0.000000	

Readings

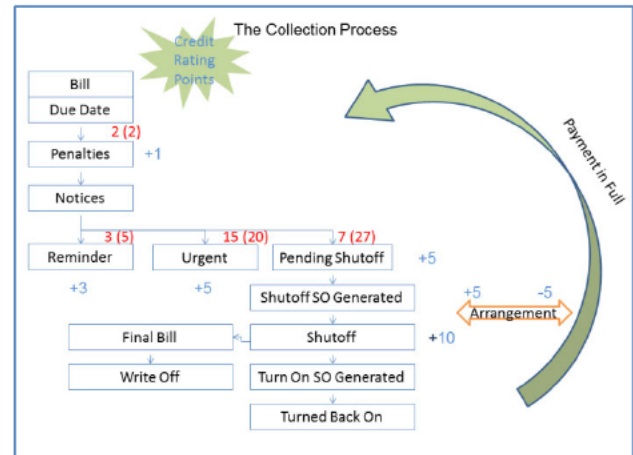
Record 1 of 2

Service	Meter #	Read Type	Previous Read	Bill Code	Current Read	Read Status	Consumption	Meter Change	Date Installed
Water	W13364	Water	70	LW3 - OCN - Res Water - 1.5" Meter	80	Estimate	10.00	<input type="checkbox"/>	6/1/2011

Account Exception: Bill greater than \$1000, Dollar amount of this bill is 400% higher than last bill; Water-Service period is greater than 45 days; Meter W13364-The reading is an estimate.; Sewer-Service period is greater than 45 days.

The collections process is designed to “ratchet” delinquent customer accounts toward the disconnection service consequence in a timely fashion and according to account class rules. This is achieved by an automatic progression of collection **statuses** displayed prominently on each account.

Collections workflow can be fully **automated**. Tasks for other staff, letters to customers, service orders, bill messages, additional charges and a variety of other actions can be automatically generated off events in a customer’s collections activity.



The collection status, credit rating points, any payment arrangements, and any disconnect or reconnect service orders all display prominently on each customer account in the AccountView form. Conspicuous font coloring reveals the collection statuses to enable instant detection when searching through a customer account listing. Cashiers are alerted to these statuses when the customer’s account number is entered on the form.

Customer	Service Address	Customer/Account	Services	Addresses	Transaction History	Billing History	Bills	PAP	Tasks
Customer: 0004300 Account: 0445072325 CHINA SHUTTLE 325 FREEMONT DR GAS ONLY TERRACOTA 30494-1409	Balance: \$333.45 Deposit: \$0.00 Last Bill: \$333.45 Due 2017-09-11 Plan: None Notes:	Active Owner Created: 2017-09-05, Modified: 2017-09-04 Collection Order	Pending Service Orders eBill User ID: 000						

Using the Collections tab on the AccountView form staff can effectively identify, manage and perform collection actions against delinquent accounts. CIS Infinity allows staff to quickly target accounts by the account class, amount owing, service, days past due and much more. Within the collections tab staff can issue notices, send letters or schedule phone calls to overdue accounts.

In CIS Infinity, a unique permanent identifier for each customer facilitates credit transfers between old and new accounts, eliminating unnecessary write offs. CIS Infinity tracks each individual’s credit rating using the in-house credit rating point system, which is based on your specifications. Unlimited collection history is stored for each account and is quickly accessible through the AccountView form.

The screenshot shows the 'Credit Rating' tab in the CIS Infinity software. The interface includes a top toolbar with various icons for navigation and actions. Below the toolbar, there are tabs for 'Customer', 'Account', 'New Services', 'Records', 'Create', and 'Filter'. The main content area displays customer information, including the account number (0008798), balance (\$212.49), and credit rating (Poor). A 'User Modification' section on the left allows for changes to the credit rating, including fields for 'Credit Rating', 'Change Date/Time', 'Change End', 'Change Reason', 'Change Start', 'Changed By', 'Credit Rating Last Updated', 'Have in date', 'Have out date', and 'Credit Rating Notes'. A 'Details' section on the right shows a table of credit items with columns for 'Date/Time', 'Credit Item', 'Description', 'Item Amount', 'Credit Points', 'Account #', and 'Service Address'.

CIS Infinity has a pre-configured integration with Online Utility Exchange, an industry- leading credit check solution for utilities. This provides the ability to conduct soft credit checks on customers who are applying for services. This soft credit check verifies if a deposit is owing, or to a deposit needs to be increased based on the business rules of the County. This is all configurable within CIS Infinity.

The screenshot shows the 'Deposits' tab in the CIS Infinity software. The interface includes a top toolbar with various icons for navigation and actions. Below the toolbar, there are tabs for 'Customer', 'Account', 'New Services', 'Records', 'Create', and 'Filter'. The main content area displays customer information, including the account number (00529456), balance (\$27.60), and deposit status (Active). A 'Deposits' section on the left shows a table of deposits with columns for 'AR Code', 'Deposit Type', 'Deposit Amount', 'Deposit Status', 'Quote Date', 'Deposit Received Date', 'Last Interest Date', 'User ID', 'Expiry Date', and 'Reference #'. A 'Transferred Deposits' section on the right shows a table of transferred deposits with columns for 'Customer #', 'Account #', 'AR Code', 'Deposit Type', 'Deposit Amount', 'Deposit Status', 'Quote Date', 'Deposit Quote Pickup Date', 'Deposit Received Date', 'Last Interest Date', and 'User ID'.

- **Customer Information**

CIS Infinity, Version 4 tracks all key information about a Customer and an Account. Key Customer information includes primary, secondary names, phone numbers, and email, SSN, driver's license number, secondary addresses etc., which allows the

County's Customer Service Representatives (CSRs) to easily find and validate the customer.

Key Account information includes address data, GPS coordinates, parcel ID, services, etc. Customer and Account data fields are not only informational but can also be used to drive your business processes (e.g. Account Type, Owner vs. Tenant etc.). User defined fields are also available to track additional Customer and Account information.

CIS Infinity retains all customer history including billing, transactions, moves, calls, customer correspondence, comments, service orders, usage, credit and payments, for an unlimited period of time.

Regardless of the Customer, all important Customer/ Account information may be placed in the Customer Information Band, which can be configured down to the user level. This means the Customer Information Band is completely customizable for displaying information from processing and batch forms (e.g. Billing and Collections).

The best part is you define what is important (i.e. if the Customer has a payment arrangement, an outstanding balance, is Pending Disconnect, etc.). The Customer Information Band is designed to display a summary of that Customer/ Account, however, when you click on any piece of information in the band, it will immediately take you to the tab on the AccountView form which reflects the details. This one click access to information allows the County's CSRs to focus on resolving customer inquiries quickly, on the first call.

First Call Resolution is the aim of Contact Management in CIS Infinity. In order to have all required information at your fingertips, the Contact Management design gives the County quick access to the information needed to assist any customer that calls or walks in.

Contact Management is performed in a variety of ways from various tabs (i.e. Notes, Tasks, Letters, Service Orders, Contacts, Inquiries, Schedule, Emails and Attachments) on the AccountView form.

The screenshot shows the 'AccountView' window. At the top, there's a toolbar with various icons for navigation and actions. Below the toolbar, the form is divided into several sections. The 'Customer' section on the left contains fields for Customer ID (03286738), Account ID (0022960225), and address information. The 'Account' section on the right shows balance (\$293.45), deposit (\$0.00), and service status (Active Tenant). A red box highlights the 'Customer' tab in the bottom navigation bar, which is currently selected. Other tabs include Service Address, Customer/Account, Services, Addresses, Letters, Inquiries, Notes, Emails, Attachments, and Service Orders. The main content area shows details for Customer 03286738 and Account 0022960225, including balance, deposit, and service status.

Records of all historical transactions (including Use ID and Date/Timestamp, Service Orders, Notes, Tasks, Letters, Emails, Outbound Calls, etc.) are stored and all correspondence is supported and can be generated or tracked per customer/account. For example, the Notes tab tracks everything about the customer, and the Letter tab tracks all letters that were sent to the customer.

Automation of the County's contact with your customers can be done individually per customer or in mass, through the use of established Filters (e.g. filter on all "Residential" customers that live on "Main St.") and by generating Actions (i.e. workflows). CIS Infinity will track the appropriate contact method under each applicable tab in the AccountView form for each customer.

Correspondence in the form of files (i.e. images, documents, scanned pages, voice recordings, etc.) can be attached by you to the Customer and/or Account record. Attached files can be viewed directly from the AccountView form, all with a single button click and without having to open a separate application or window.

- **Meter Management**

Along with robust management tools for gas, electric and water meters, CIS Infinity's fully featured inventory management modules perform identification, access and management of non-meter serialized and non-serialized equipment inventory.

All equipment inventories are available for reporting and querying, and provide a detailed view of each inventory item, including installation history, test history and a link to the account at which the item is currently installed.

Managing your equipment assets is done more effectively through additional targeted functionality, depending on a specific type of equipment. Your business requirements can be met through generalized or specific functionality, which can include

- Performing complex or flat-rate billing on equipment-based services, such as billing customers for the number and type of street lights associated with their property or for the frequency and type of solid waste pickups,
- Tracking the transformer associated with a meter,
- Supporting mass additions and updates of your equipment inventory.

Detailed information about each item installed is available from the Equipment tab on the AccountView form. Equipment can also be added, changed out, or removed from an account. Equipment re-verification and repair service orders can also be automatically generated through the Service Order module.

AccountView x

Previous Active Next History 1 6 Add Copy Mass Add Refresh Search Contact Letter Note S/O Action Arrangement Task Open Previous Next Close

Customer: 00529406 Account: 0294785 TAMMY BEST 1 POLOFG Street TORONTO, ON 01234

Balance: \$14,032.57 Deposit: \$0.00 Last Bill: \$13,892.26 Due 4/16/2016 Plan: None Next:

Account Status: Active Occupancy Type: Owner Credit Rating: Poor Meter Info: 001 Cycle/Book: Cycle - JP / Clark Book 3283

Account Type: Residential Pending Moves: Moved in 1/1/2011 Pmt. Arr.: Collections Okay Pending SO's: 916967,913781

Customer Service Address Services Transaction History Reading History **Equipment** x GIS Notes

Record 1 of 4

Equipment Number	Serial #	Inventory Type	Date Installed	Service	Date Removed	Source	Notes	Remote	Installation	Active	Linked Meter	Service ID	Service Entrance I
> GUCE001		Electric Meter	1/1/2011	Electric						<input checked="" type="checkbox"/>		177884	
GUCEW001		Water Meter	1/1/2011	Water	2/19/2020					<input type="checkbox"/>		177883	
W11910		Water Meter	2/19/2020	Water						<input checked="" type="checkbox"/>		177883	
W11915		Water Meter	2/19/2020	Water						<input checked="" type="checkbox"/>		177883	

- Meter Reading Interface**

CIS Infinity interfaces with all industry meter reading applications to send accounts out for readings, and capture all readings with accompanying notes and/or comments.

Transaction Request Control x Batch ID: 20183 - C 26 GOODBILLS 8/15/17 AR - Bill Processing x Collections Processing x Batch ID: 20183 - C 26 GOODBILLS 8/15/17 AR - Bill Processing x **AccountView** x

Previous Active Next History 1 6 Add Copy Mass Add Refresh Search Contact Letter Note S/O Action Arrangement Task Open Previous Next Close

Customer: 00086788 Account: 0002060225 PEGGY CARLISLE 186 FORESTDALE PL APT 112 Toronto, ON 02345-4789

Balance: \$293.49 Deposit: \$0.00 Last Bill: \$75.72 Due 6/23/2017 Plan: None Next:

Account Status: Active Tenant Call #: 17400 Cycle 02 / Book 804

Account Type: Residential Moved in 5/14/2013 Pending Service Orders: eBill User ID: RM

Customer Service Address Customer/Account Services Addresses Transaction History Reading History Bills **Meter Reading** x

Record 1 of 2

Service	Meter	Active	Instn/Location Code 1	Instn/Location Code 2	Account	Instn/Location Code 3	Force Codes	Meter Notes	Must Read Indicator	Utility Meter Data	Display Indicator	Previous Tampers 1 Value	Previous Tampers 2 Value	Meter Read Custom1	Meter
> Electric		<input type="checkbox"/>			0002060225						Blank	16			
Electric	12001277	<input checked="" type="checkbox"/>			0002060225			< 389			Blank	16			

Automated Meter Reading (AMR) is also fully supported in CIS Infinity, as well as creating and importing meter reading files through a scheduled process. There are no limits to the meter reading formats that can be concurrently supported and processed in CIS Infinity.

Advanced is equipped with extensive experience to support transitioning to an AMR environment, if required.

- **Rates Management**

Many Advanced Clients bill either single or multiple services with CIS Infinity, which include:

- Electricity (e.g. metered, flat rate, Demand, TOU and interval customers),
- Water (e.g. metered – single, multi-flow and flat rate),
- Sewer (e.g. metered and flat rate),
- Other Services (e.g. Sanitation, Solid Waste, Gas, Propane, Concrete, Cable, Fiber, Irrigation, Reclaimed Water, Drainage, Steam, etc.).

CIS Infinity's rate engine has a unique design that uses extensive normalization of the rate structure to allow for virtually unlimited straightforward and complex rate configurations. With this rate engine the County has complete control over the rate design (e.g. no rate configuration used) and model (e.g. no hard-coded rate elements).

Some Main Features of the Rate Engine	Elements Supported on a Single Rate	Other Rate Elements
Unlimited rates	Basic or flat charges	Caps or floors for complex customer-specific contract terms
Unlimited rate elements (rate details)	Block or Step (tiered) based on usage	Aggregation and consolidation of rates, usages and prices indexes
Service (consumption based) and meter (meter size based) specific rates	Surcharges or usage-based charges	Utilization of time zone calculation when rates and usages exist in different time zones
Customer specific rates	Minimum Charges / Maximum Charges	Billing adjustment elements used for complex tax calculation or city council mandates
Account specific rates	Adjustments (i.e. Senior Discounts, etc.)	Minimum bill elements used in the calculation of minimum bills for customers
Customer/Account specific rates		

Other powerful and configurable capabilities of the rate engine include:

- **Proration** – Pro-ration rules in the CIS Infinity rate engine follow the same flexible nature of the rate design. This puts the rules of pro-ration into the hands of the County and allows proration by service, bill type (e.g. final vs. regular bill), event type (e.g. meter change vs. rate change), and even at the rate element level.
- **Formulas** – The CIS Infinity rate engine allows for special rate cases to be handled by embedding formulas (e.g. “Microsoft Excel” type formulas) to any rate element or combination of rate elements. The rate formula design allows the use of any field in CIS Infinity, any field that exists during bill calculation, any mathematical function, as well as SQL statements.

For example, this is useful in the calculation of a Water Budget for a Customer/Account. Water Budgets are typically based on specific variables on each Customer/Account such as Lot Square Footage, House Square Footage, Irrigable Area, Number of Family Members, Number of Unique Fixtures, Evapotranspiration Factors (ETO), weather factors, degree days, etc.

The advantage of using formulas is that with a single rate and the unique characteristics of each Customer / Account, CIS Infinity can calculate the Water Budget for multiple Customer / Accounts. This greatly reduces the number of rates that have to be maintained as part of [CLIENT] normal rate update process.

- **Service Orders**

Managing Service Orders is a key part of any Utility’s business. In CIS Infinity you can initiate the work, track the work, update Orders and view historical Orders. Orders can be both Service and Meter based.

More importantly, the service order workflow can be fully automated. CIS Infinity can automatically issue a service order in response to a variety of events, including, Billing Exceptions, Collections activity, and so on.

Service Order Types can be configured to behave in very specific ways (e.g. a Service Order can be set up for scheduling within specific parameters). And, since there are different outcomes when an Order is completed, automatic Actions can be attached to a specific Service Order for selection and generation as the Order is closed.

Information about service orders related to an Account is available for viewing and editing in the Service Orders tab. Full tracking along with all notes and information related to any Service Order is also easily accessible.

Varied Reporting is accessible to further track all Service Order activity.

The screenshot shows the main interface of the Advanced Utility Systems software. At the top, there is a navigation bar with icons for Previous, Active, Next, History, Add, Copy, Paste, Refresh, Search, Contact, Letter, Note, S/O, Action, Arrangement, Task, Open, Previous, Next, and Close. Below this, there are several tabs: Customer, Account, New Services, Records, Create, and Filter. The Customer tab is selected, showing details for Customer: 03086758, Account: 0002060225, and Address: 156 FORESTDALE PL APT 112, Toronto, ON M2M 4B9. The Account tab shows details for Balance: \$393.49, Deposit: \$0.00, Last Bill: \$79.72 Due 8/23/2017, Plan: None, Next: None, and Cycle 02 / Box 004. The Records tab shows details for Service Order: 541438, Status: Reconnect - Account Paid, Date: 11/18/2019, and User: CIS Infinity User. The Create tab shows details for Service Order: 541438, Status: Pending, Date: 11/18/2019, and User: AMI Technician. The Filter tab shows details for Service Order: 541438, Status: Pending, Date: 11/18/2019, and User: AMI Technician. Below the tabs, there is a table with columns: Service Order #, Type of Service Order, Print Date, Completed, Date Work Completed, Cancelled, Created By, Date/Time Created, Assigned To, Assigned To Department, Printed By, Date/Time Printed, Work Done By, Completed Timestamp, and Preferred Reading For. The table contains one row with the following data: 541438, Reconnect - Account Paid, 11/18/2019, [checkbox], [checkbox], CIS Infinity User, 11/18/2019 10:40:35 AM, AMI Technician.

The screenshot shows the 'Add - Service Order' form. The form has a title bar 'Add - Service Order' and a menu bar with 'Service Order Details', 'Meter Selection', 'Progress/Completion Notes', 'Appointment', and 'Events'. The 'Service Order Details' tab is selected. The form contains the following fields: Customer/Account (03086758 / 0002060225), Type of Service Order (Reconnect - Account Paid), Print Date (11/18/2019), Emergency Service Order (checkbox), Hold (checkbox), Assigned To (Department: AMI Technician), Create Service Order on Save (checkbox), Service Message (text area), Pending (checkbox), Service Order # (541438), Maintenance Service Request # (0), Service Request ID (text field), Work Order Key (text field), Date/Time Created (11/18/2019 10:41:13 AM), Created By (CIS Infinity User), Date/Time Printed (text field), Printed By (text field), Completed Timestamp (text field), and Closed By (text field). At the bottom, there are 'Save' and 'Cancel' buttons.

The Service Order Management form is available to further organize, search for and track Service Orders.

Service Order Management x

First Previous Next Last Add Edit Delete Copy Refresh Filter Search AccountView Print Actions Misc Help

Customer: 00268665 Service Order: 916969
 Account: 0203085 Type:
 R T OVERBY UTILITY HSE Status: Pending
 1020 ANCHORAGE Road Date To Print: 2/26/2020 12:00:00 AM
 TORONTO, ON 01234

Service Order Details Meter Selection Progress/Completion Notes Appointment Events List

Customer # 00268665 Status Pending
 Account # 1020 ANCHORAGE Road (0203085) Service Order # 916969
 Type of Service Order BILLING REREAD Maintenance Service Request # 0
 Emergency Service Order ☐ Service Request ID
 Hold ☐ Work Order Key
 Assigned To Arrival Date/Time
 Assigned To Department Billing Travel Time (in hours) 0.00
 Service Message Labor Time (in hours) 0.00
 Created By CIS Infinity User
 Date/Time Created 2/26/2020 7:08:51 AM
 Printed By
 Date/Time Printed
 Closed By
 Date Work Completed
 Action ID

Print Date: 2/26/2020 12:00:00 AM

Property Information including liens recorded

The Account Number in CIS Infinity represents the service address (premise) where one or more utility services are provided.

Each account is designated with a collection status – depending on where the customer is in the collections process including lien.

- Reporting**

Although CIS Infinity provides easy one click on-line access to information, utilities often require reports for managerial and operational purposes. All reports included with your CIS Infinity license utilize a runtime version of Crystal Reports. Reports can be run ad-hoc, or scheduled to run one time or on a recurring basis.

There are five reporting levels available in CIS Infinity, which allow users to access the information they need, and export it in the format they desire:

- **Advanced Searches** – Quickly select the data on which you wish to report and with one click, export the results to XLS, or other types of file formats (e.g. XML, PDF, etc.)
- **Standard Reports** – Run any of the numerous utility specific “out of the box” CIS Infinity reports and apply your data filters to get the information you need.
- **Modified Standard Reports** – Don’t like the format and data elements contained in the CIS Infinity standard reports, simply copy the report and make the changes that will meet your reporting requirements.
- **Utility Specific Reports** – Create new reports to meet your unique reporting requirements. Attach your own Crystal Reports format to the CIS Infinity reporting environment so users can access your utility specific reports directly from within CIS Infinity.

- **Shared Reports** – Leverage reports (e.g. statutory, state specific reports) that other utilities using CIS Infinity have created. Share reports within the CIS Infinity user community.
- **e-Commerce including recurring scheduled online credit card and bank transfer¹ bill payment and presentment**

Infinity.Link provides the County's customers with the ability to pay their bills online.

Infinity.Link Enterprise is a comprehensive customer engagement portal that not only offers the County's customers self-service functionality, but also transparency to their bills and usage as well as personalized, actionable advice on how to save.

Customer Dashboard

3

Change Account

You are currently viewing account 000010-01

Refresh

Logout

Home

Bills & Payment

Transactions

Billed Usage

Smart Meter

Compare

Outages

Forms

Profile

Logout

Account Details

Your account is past due and may be disconnected. Please settle payment as soon as possible to avoid interruption of service.

Address:	123 MAPLE AVE, SPRINGVILLE, NY 10001
Credit Rating:	Good
Name:	HAPPY CUSTOMER
Balance:	\$80.98
Past Due:	\$123.45
Pay Plan:	Budget Billing Account, Auto Pay

My Alerts

Outage Alert

An outage has been confirmed at 123 MAPLE AVE, SPRINGVILLE, NY 10001.

View Map

Planned Outage

An outage is planned on Apr 26, 2018 at 123 MAPLE AVE, SPRINGVILLE, NY 10001.

View Details

Electricity Budget Exceeded

\$66.31 ↑

your electricity charges to date for your current bill

\$10.00

your budget threshold alert setting

High Water Usage Alert

31.19% ↑

more usage than the same period last year

25.00%

your high usage alert setting

My Current Bill

Current Balance: \$80.98

You are enrolled in our Pre-authorized Payment plan. Payment is not required as we will automatically withdraw payment.

View My Current Bill

Pay Bill

This account is not eligible for a bill payment extension at this time.

My Smart Meter Activity

Electric

Current	\$66.31 (30 days)
Predicted	\$72.94 (33 days)
Last Bill	\$72.36 (33 days)

The consumption data displayed here is the most current available, but will not be finalized until the billing date. The consumption values are for information purposes only.

Electricity

Water

Gas

You used 11.1 kWh more electricity compared to your previous bill

Usage on your current bill dated 1-Feb-2018

674.5 kWh

Usage on your previous bill dated 2-Jan-2018

663.4 kWh

Why was your consumption more?

There were 33 days in your current billing period compared with 32 days in your previous billing period.

The average temperature in your current billing period was 26.2F compared with 18.5F in your previous billing period.

Check out our electricity conservation tips to help you save!

View History

See how you compared in previous billing periods

My Consumption Ranking

ELECTRICITY

35 out of 60

View Details

See your usage compared to neighbours

WATER

12 out of 59

View Details

See your usage compared to neighbours

GAS

14 out of 60

View Details

See your usage compared to neighbours

My Recent Account Activity

View All

Date	Description	Amount	Balance
16-Feb-2018	REGULAR BILL	\$80.98	\$80.98
2-Feb-2018	PAC PAYMENT	\$-190.47	\$0.00

Go Green

E-Bill & Online Payment

Change Account

You are currently viewing account 000010-01

Refresh

Logout

Home

Bills & Payment

Transactions

Billed Usage

Smart Meter

Compare

Outages

Forms

Profile

Logoff

My Electronic Bills

View My Current Bill

View Bill	Date	Bill Amount	Due Date
View Bill	16-Feb-2018	\$80.98	4-Mar-2018
View Bill	17-Jan-2018	\$190.47	2-Feb-2018
View Bill	18-Dec-2017	\$90.69	3-Jan-2018
View Bill	16-Nov-2017	\$190.17	2-Dec-2017
View Bill	19-Oct-2017	\$138.93	4-Nov-2017
View Bill	19-Sep-2017	\$242.91	5-Oct-2017
View Bill	17-Aug-2017	\$141.20	2-Sep-2017
View Bill	19-Jul-2017	\$234.46	4-Aug-2017

Get ADOBE® READER®

Bills are presented in Acrobat Reader format.

Download the free Adobe Reader to view and print your electronic bills.

Pay My Bill

Current Balance: \$80.98

You are enrolled in our Pre-authorized Payment plan. **Payment is not required** as we will automatically withdraw payment.

Pay My Bill

\$4.00 Credit Card Fee
\$0.50 eCheck Fee

Auto Pay

\$0.00 Credit Card Fee
\$0.50 eCheck Fee

Paperless Bills

You will be taken to our on-line payment website where you can pay your utilities bill. Once you have completed the transaction, you will be returned to this website.

To pay your bill now, please select a bank from the list below

Select a bank

This account is not eligible for a bill payment extension at this time

We welcome your comments and feedback

Rate this page ☆☆☆☆

Transaction History

Change Account

You are currently viewing account 000010-01

Refresh

Logout

Home

Bills & Payment

Transactions

Billed Usage

Smart Meter

Compare

Outages

Forms

Profile

Logoff

Your Transaction Details:

Show

10

entries

Search:

Date	Description	Amount	Balance
16-Feb-2018	REGULAR BILL	\$80.98	\$80.98
2-Feb-2018	PAC PAYMENT	\$-190.47	\$0.00
17-Jan-2018	REGULAR BILL	\$190.47	\$190.47
3-Jan-2018	PAC PAYMENT	\$-90.69	\$0.00
18-Dec-2017	REGULAR BILL	\$90.69	\$90.69
2-Dec-2017	PAC PAYMENT	\$-190.17	\$0.00
16-Nov-2017	REGULAR BILL	\$190.17	\$190.17
4-Nov-2017	PAC PAYMENT	\$-138.93	\$0.00
19-Oct-2017	REGULAR BILL	\$138.93	\$138.93
5-Oct-2017	PAC PAYMENT	\$-242.91	\$0.00

Showing 1 to 10 of 21 entries

First

Previous

1

2

3

Next

Last

Download

Downloads are provided in .CSV format for spreadsheet imports.

If your spreadsheet software does not open automatically when you click the downloaded file, save it and open it manually.

We welcome your comments and feedback

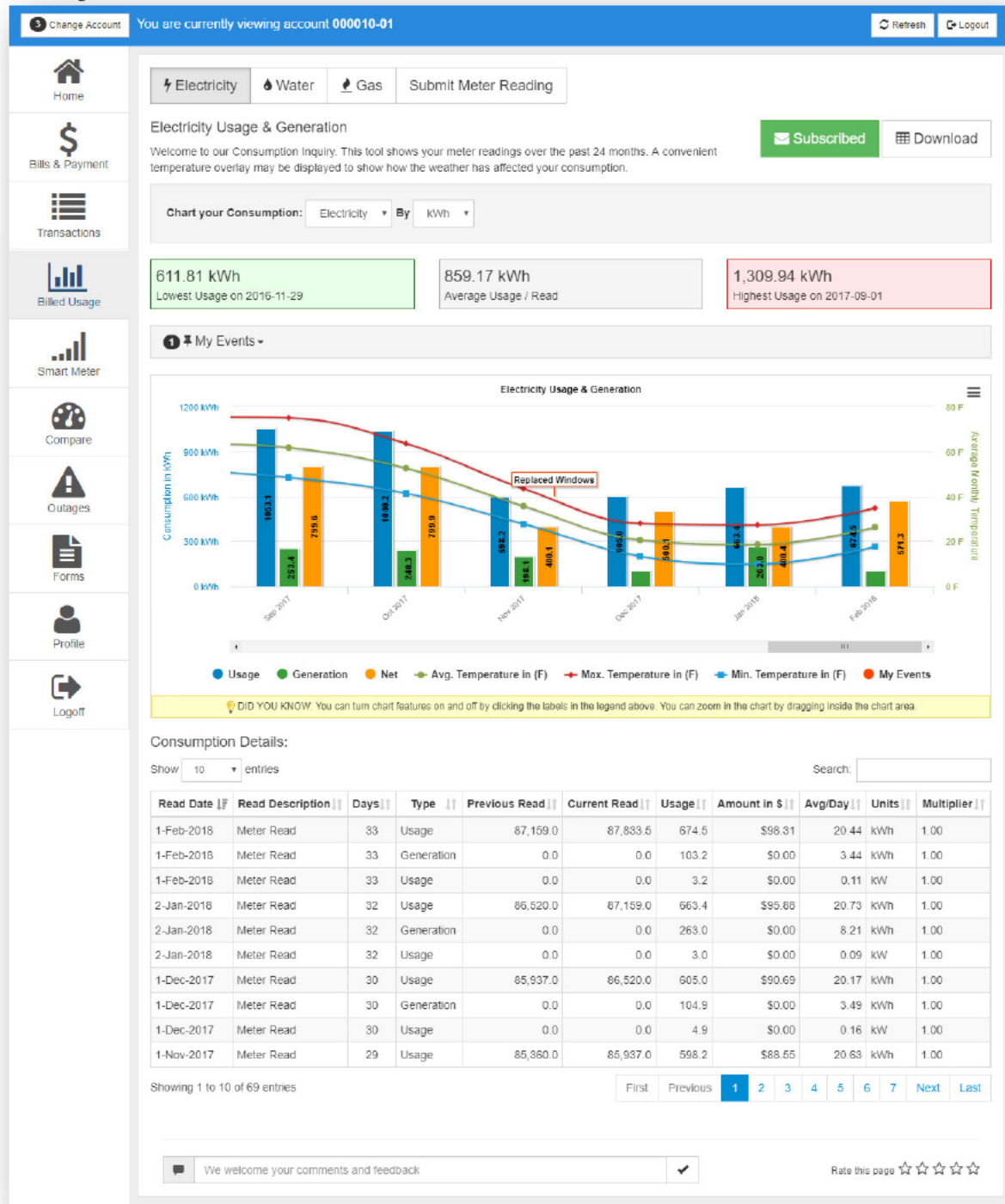
Rate this page

☆☆☆☆☆

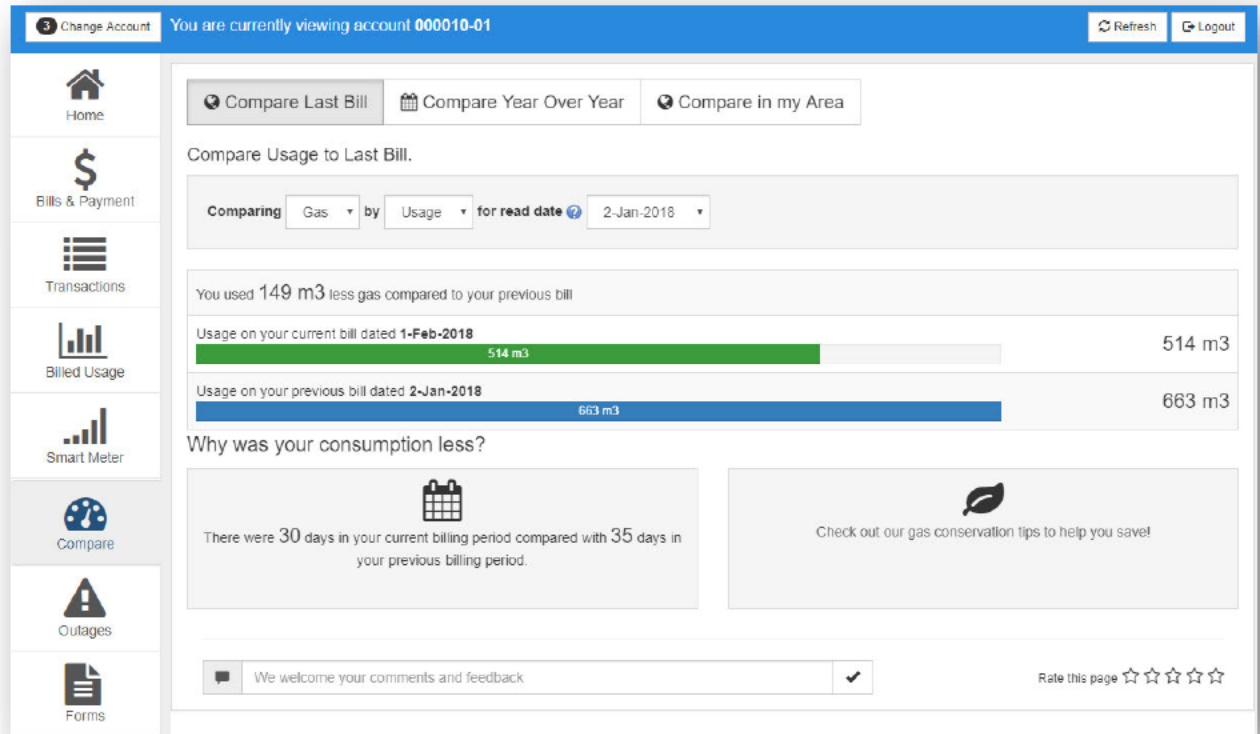
Request for Proposals # 21103
Utility Billing System for Lake County Public Works

20

Billed Usage



Compare My Last Bill



The County would prefer to implement a software package that limits the number of customizations (i.e., changes to source code) to the base application. The County seeks a system that includes development tools that will enable the County to meet its future needs without becoming heavily dependent upon programmer consultants.

Every utility has unique business processes that must be supported by their systems without having to rely on their vendor to configure changes. All business rules are configured not "hard-coded" to meet the requirements of the County. When new requirements emerge in the future, the County can use in-house administrative staff to make the changes, eliminating custom coding projects that can result in unexpected, budget-breaking costs and delays.

Critical requirements are identified in the Technical Specifications, and those items noted as "critical" must be demonstrated to ensure that the function number of steps required to complete this process is similar (within 10-20%) of the existing process. Additional steps required reduce the Departments efficiency and may impact the staffing model supporting our Billing and Finance division.

With an upgrade from CIS Infinity, V3 to V4, all critical requirements processes will remain the same with many requiring less steps and becoming more efficient.

Configuration Documentation

The proposer is responsible for developing a detailed design/configuration document that needs to be signed off by Lake County Public Works prior to programming activities. This design document will be the basis for the proposer to develop a testing plan. The testing plan will have to be approved by Lake County Public Works and will be used at the end of the project by Lake County Public Works for final system acceptance.

A Discovery session is held to review and confirm all required configuration of interfaces, billing formulas, rates, bill prints, receipts, notices, and reports.

The functional discovery document covers the following topics:

Rates

- Review the Rate Bill Codes (BIF100)
- Are any of these Rate Bill Code no longer used?
- When will the next Rate Change be in effect and proposed changes?

Billing Formulas

- Review the Rate Formulas (BIF102)
- Note some formulas will call another long script formula field or another formula code
- Note formulas can also be called from other locations in CIS such as Actions
- All necessary formulas will be reconfigured in V4 using PowerShell logic

Notices

- Review all types of Collection Notices (CON008) :: Notice Document Control (COL114)
- What is the business process for Collection Notice Processing ?

Interfaces

- Review all interfaces included on the SOW
- Discuss the custom defined layouts (ITR013)
- Discuss the accounting related layouts (SYS021)
- What is processed using the File Export/Import Processing form?

Integrations

- Discuss any integrations with other systems
 - Infinity.Link V3
 - Direct access to CIS DB
 - GIS
 - Meter Reading
 - GL
 - ACH (PAP)
 - Is a prenote file used?
 - Payment Processor
 - IVR
 - Address Verification
- Integrations Configured in V3 (SYS075)

Miscellaneous

- Discuss payment authorization method
 - Are Payments authorized through payment processor?
 - Are Credit Cards taken in the Cash Register?
- Is Tax Profile being used?
 - Tax Profile
 - Tax Code
- Discuss other aspects unique to client

Bill Print

- Review the Bill Print Templates (CON069)

Reports

- Review list of custom reports (use data\reports :: then browse the 'REPORTS' table)
- Are any of these Custom Non Standard Reports not being used?

Data

- Is client currently performing any SQL Scripts directly to the DB?
- Are there Event Handlers configured in V3 (SYS017)
- Note that there will be another meeting to review and discuss the data discrepancies identified from the Data Integrity Check

Scheduler

- Review any jobs run via scheduler

V3 data integrity processing is provided to identify any data issues in order to provide resolution before initial data conversion and throughout the project.

Advanced provides a data validation report confirming both Version 3 and Version 4 systems are in balance, a Smartsheet testing database and dashboard, and a tool for comparing data and batches between the two systems to identify any anomalies during testing.

Testing

The proposer will develop a testing plan based on the system design document described in above for approval by Lake County Public Works. The success of implementation will be based on successful completion of the testing plan. Final acceptance of the system installation and integration will not take place until two parallel billing cycles are successfully completed after the UB/CIS system has gone “live” in a production environment.

Please refer to Phase 4 - Testing and Data Refreshes on page 34 under section D. Implementation/Project Plan by clicking [here](#).

Final Documentation

The proposer will develop final documentation that identifies all elements of the system, including third-party software and custom developed software, along with detailed user manuals for end users, system administrators and report writers

Advanced will provide Lake County with a Scope of Work that identifies all elements of the system, including third-party software and custom developed software.

Advanced provides comprehensive software documentation that describes the features and function of CIS Infinity and complementary solutions:

Online Help

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).



CIS Infinity Help

Recent changes Media Manager Sitemap

You are here: [start](#)

Welcome to CIS Infinity Online Help

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CIS Infinity is the best-in-class customer information and billing system for electric, water and natural gas utilities.

With CIS Infinity, you can control all aspects of your billing and customer service operations. CIS Infinity interfaces with accounting packages, report writers, meter reading systems and mapping software as well as spreadsheets, word processing and Web-based applications.

With CIS Infinity, divisions within your utility can share historical information and comparative data in order to respond effectively to competition, market new products and services and build customer loyalty.

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start.txt · Last modified: December 02, 2014 by risaacs

Training Workbooks

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.

For consistency and clarity, Advanced end-user documentation follows the Microsoft Manual of Style for Technical Publications.

User Guides

Advanced offers several user guides that provide step-by-step instructions on how to use our solutions.

Technical Documentation

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.

Integration

The UB/CIS must integrate with the existing supporting systems:

- **Itron Meter Reader System**
- **Hansen/EnerGov Meter Permit**
- **First Midwest Bank Lockbox**
- **Collector Solutions (NCR Magic)**

The UB/CIS integration will include the handling of General Ledger (GL) entries from the billing system, provide refund GL information back to the cashing system, the vendor will be responsible for defining the information required, defining file formats as well as importing, exporting the information to the UB/CIS, defining file formats for data input into the UB/CIS, importing/exporting data with the UB/CIS, integrating with Lake County Public Works existing systems as outlined above and creating customer statements. Lake County Public Works will provide technical assistance in the integration.

Included with the upgrade from CIS Infinity, Version 3 to CIS Infinity, Version 4 are all existing interfaces to CIS Infinity, Version 3.

Upon further discussion with the County we could provide integrations to the other third-party systems that are not currently integrated.

Advanced has developed a number of interfaces between CIS Infinity and permitting systems. The interfaces typically import information from the system to automatically create new accounts within CIS Infinity. This information includes parcel number, service address, property owner information and other key determinants received from the system.

This interface framework would be enhanced as required, using web services or the interface table approach, to accommodate the specific business rules of the County.

Advanced has the ability to configure just about any Works Management product interface using an API utilizing exposed interface tables.

CIS Infinity currently has a real time interface with many CMMS applications where specific service order information is automatically sent to the system.

Once information is updated in the work order system, CIS Infinity is then automatically updated with the same information. Utilities can configure within CIS Infinity which service orders trigger a work order in the CMMS. Also, when information in CIS Infinity is updated such as customer information, meter information or service information, a trigger can be sent real time, to ensure both databases are up to date and accurate.

CIS Infinity has interfaced with many financial management systems both for exporting general ledger and accounts payable (refund check) information including Oracle.

The financials interface that Advanced provides pushes general ledger information from CIS Infinity including all billings, all cash payments and all adjustments. When a refund is

required, CIS Infinity will also send the trigger to produce the check and will update CIS with the check number, check amount and check date for easy reconciliation.

The interface approach can either be using the Advanced Interface Manager export file configuration tool, database access, or utilizing web services. Whichever approach is selected we would successfully define the interfaces for both general ledger and accounts payable information between CIS Infinity and Oracle.

D. Implementation/Project Plan

This section should describe the Proposer's implementation and project plan. Proposers should assume that the County will contribute all necessary effort to ensure success in the project.

- Provide methodology for implementation. Methodology should include estimated timeframe, overview of deliverables, assumptions and assumed responsibilities and roles of the County and proposed project team.

Project Management

Project management occurs throughout the project. Advanced will have primary responsibility for the successful completion of this project as defined in the Scope of Work, including the management of all Advanced resources and tasks. Advanced will be responsible for conducting project related administrative activities including the development and updates, as required, to the project schedule. The Advanced Project Manager (PM) will provide oversight and guidance to Advanced staff to ensure successful completion of Advanced led/assigned activities and related project tasks. Similarly, the County's PM will provide oversight and guidance to Lake County staff to ensure successful completion of County led/assigned activities and related project tasks.

ADVANCED DELIVERABLES:

The Advanced Project Manager/Functional Lead (PM) will deliver the following as part of their Project Management duties:

1. Lead the weekly project meeting to discuss status, address questions and provide direction on outstanding activities
2. Prepare weekly status reports documenting work in progress compared to schedule, issues, actions, risks and budget
3. Participate in a bi-monthly Executive Steering Committee meeting to review project status; to be attended by the PM and Project Sponsor
4. Update the Project Schedule on a monthly basis, or as required, based on outcomes of the project status
5. Manage the efforts of the Advanced staff and coordinate project activities with the County's Project Manager
6. Ensure timely resolution and updates to Team Support items

COUNTY DELIVERABLES:

The County's PM will deliver the following as part of their Project Management duties:

1. Participate in the weekly project meeting to discuss status, address questions and provide direction on outstanding activities
2. Organize and lead the bi-monthly Executive Steering Committee meeting to review project status, to be attended by the County's Project Manager and Project Sponsor(s)
3. Manage the efforts of the County's staff and coordinate project activities with the Advanced Project Manager
4. Ensure project team is testing and providing timely update to Team Support items and test scripts
5. Review and approve project deliverables
6. Review and process invoices

Implementation Methodology

Phase 1 - Project Planning and Initiation

Advanced and the County will partner together for successful project execution. Project Initiation will involve all members of the Advanced and Lake County project team. Prior to the remote Project Kickoff meeting, Advanced and the County will assemble their respective teams who will review this SOW in preparation of the Project Kickoff meeting. It is also highly recommended that the County review the Version 4 upgrade documentation provided prior to the Project Kickoff meeting.

The Project Schedule for the County identifies the activities, deliverables and resources required for the successful upgrade of CIS Infinity. The Advanced PM and the County will review the Project Schedule and internal project dates that may affect project milestones (for example, third party delivery dates). The County is responsible for managing the timelines and deliverables of any third party vendor, to ensure they meet the requirements of the approved Project Schedule. The Advanced PM and the County's PM will finalize the project schedule within 2 weeks of the Project Kickoff meeting.

Any significant changes to the project timeline during the project are to be communicated and reviewed by the Project Sponsors of the County and at Advanced. Significant changes affecting the overall scope of the project may necessitate the use of a Scope of Work Amendment process.

ADVANCED DELIVERABLES:

1. Schedule and conduct a joint remote Project Kickoff meeting which will include the review of this SOW, Project Schedule and the CIS Infinity Version 4 Upgrade Checklist
2. Review all interfaces
3. Schedule a Functional Discovery Workshop and provide agenda
4. Develop joint Project Team Contact list
5. Review and revise, if required, Weekly Status Report format
6. Review and finalize project schedule with the County's PM
7. Deliver Core Team Training Agendas
8. Provide access to Standard Version 4 Training Workbooks via Team Support if required
9. Deliver generic testing scripts database
10. Remotely install CIS Infinity Version 4 software on the County's designated server as documented by the County
11. Install Version 4 HELP and WIKI
12. Train Lake County on how to apply new Version 4 builds

COUNTY DELIVERABLES:

1. Procure, set up and install any required hardware and associated system software prior to the Project kickoff
2. Upgrade, if required CIS Infinity Version 3 to the latest build prior to the Project Kickoff
3. Upgrade, if required Infinity.Link to the latest build
4. Review and approve Project Schedule
5. Participate in Project Kickoff meeting (all project team members)
6. Identify SMEs and attend Functional Discovery Workshop
7. Create Team Support ticket for each interface which will include a sample file format and file layout description
8. Develop Test Plan and Customized Test Scripts
9. Install software required by Version 4 on client workstations and test access to Version 4 server software
10. Participate in Version 4 build application training. Application of new builds throughout the project is the responsibility of the County

Phase 2 - Data Integrity Check & Clean Up

Version 3 Data Integrity Check and Clean up

Prior to the CIS Infinity Version 4 upgrade conversion, the V3 Integrity Check Utility will be run by Advanced in coordination with Lake County within the Version 3 Test Environment. The Version 3 Test Environment must be refreshed from production by the County prior to running the V3 Integrity Check Utility. The V3 Integrity Check Utility will report on data integrity issues within the Version 3 database, which, if not resolved, will prevent the successful upgrading of the Version 3 database to the Version 4 database. This tool can be run at any time, and is not dependent on having CIS Infinity Version 4 installed.

The V3 Data Integrity Check utility will find and report on data integrity issues, such as missing links (orphaned records), code look-ups and unpopulated required fields. Advanced staff will analyze issues reported by the Integrity Check Utility and prepare SQL scripts as required to resolve data issues. Data fixes will be applied by Advanced in the Test Environment. Lake County will review data fixes and once approved, the County will run scripts and make data changes in your V3 Production Environment.

ADVANCED DELIVERABLES:

1. Run V3 Integrity Check Utility on CIS Infinity Version 3 Test Environment (Refreshed)
2. Identify, resolve and update data changes into CIS Infinity Version 3 Test Environment prior to the initial conversion of the V3 database to Version 4
3. Develop and run V3 data clean up scripts in the Version 3 Test Environment prior to the initial conversion of the V3 database to Version 4
4. Schedule Functional Discovery workshop to review data and system findings

COUNTY DELIVERABLES:

1. Refresh Version 3 Test Environment from Version 3 Production Environment
2. Participate in Functional Discovery workshop

Phase 3 – Training

Core Team Training

Core Team Training will be conducted remotely via WebEx for the core team following the initial V4 conversion rollout. Users will be trained to ensure that they can access the system and navigate through CIS Infinity Version 4 for testing purposes. To ensure an efficient and effective parallel process, Advanced recommends setting up a separate area for testing and training. The core team training is designed to train users on the new user interface (UI) and changes in key functional areas including AccountView, System Administration, Security, Cash, Billing, Collections, Service Orders, Reports, and Inventory. Core Team training assumes users are familiar with Version 3 and the County's business processes and does not include introductory or basic training to users unfamiliar with Version 3 functionality and processes.

ADVANCED DELIVERABLES:

1. Deliver remote Core Team training sessions

COUNTY DELIVERABLES:

2. Participate in remote Core Team training session

Phase 4 - Testing and Data Refreshes

Advanced will support all software testing via remote support and WebEx online support. The Advanced PM will provide Lake County with a generic testing checklist. Modification of the testing checklist to match the County's specific business scenarios is the County's responsibility.

At the start of each test cycle, a full data conversion using a fresh data extract will be performed to exercise the data conversion process and to update any required data fixes that are found through testing. With each data conversion Advanced will provide and the County will review and verify the Data Validation Report. Deficiencies found during the testing will be entered into Team Support by the County for the correction of configuration, data conversion and/or system deficiencies. Lake County will provide detailed information of issues (e.g. screen prints of data and/or system anomalies, batch numbers, SQL logs etc.) to assist Advanced in troubleshooting issues.

Team Support will be managed and maintained by the Advanced PM and will be reviewed with both Advanced and the County's staff to ensure the issues are being actively worked and tested. The Advanced PM will be proactive in the resolution of items logged in Team Support so that they will be resolved within a timely manner.

The software testing phase is split into the following three test cycles:

1. Initial Conversion and Functional Testing

Once the Version 3 data integrity and cleanup process is complete Advanced will convert the County's V3 data and load into the County's V4 Test Environment.

Advanced will supply a data validation report confirming both Version 3 and Version 4 systems are in balance and will release the system for Functional testing by the County.

The initial Version 4 Upgrade Conversion will average one to two days. The length of time necessary for conversion is dependent on several key factors including the size of the current database and whether or not detailed pre-CIS Infinity live financial data is being converted.

NOTE:

The upgrade conversion routine does not automate the upgrade of interfaces, client security settings, hyperlinks, saved reporting criteria, information bars, billing formulas, bill prints, notices & receipts and custom reports. Advanced and the County will need to configure these manually as identified below.

Advanced is responsible for converting/configuring

- All billing formulas required by the County in Version 4
- Current bill prints, notices and receipts
- Generic Information Bars
- Interfaces (Delivered at Integration Testing)
- Billing formulas, bill prints, notices and receipts will be available for Functional Testing phase. Generic Information Bars will be delivered with the Initial V4 Upgrade Conversion and Interfaces will be delivered for the Integration Test phase.

The County is responsible for converting/configuring:

- User security
- Custom reports
- Report Criteria
- Hyperlinks
- Configuration of security and custom reports are required for the Integration Testing phase. Configuration of saved reporting criteria and hyperlinks are required for the Functional Test phase.

Prior to the Initial Upgrade Conversion the County will select a group of Baseline Accounts. Baseline Accounts provide the County's staff with a point of reference when completing testing. The Baseline Accounts represent a cross-section of account types and include accounts handled differently than "normal" accounts. For example, a sample of an account for each rate code, an account with automatic withdrawal, accounts with multiple meters, and account with compound meters are all examples of accounts that should be included in the County's Baseline Accounts, as applicable.

Functional testing will utilize the baseline accounts to confirm data conversion and core business functions are working as expected. Saved searches and filters, bill print(s), notices, standard and custom reports, scheduler will also be tested during this phase. Individual accounts will be reviewed and the County will run through a meter to cash process, excluding any interfaces. Functional Testing is modular and does not test the system end-to-end utilizing interfaces.

ADVANCED DELIVERABLES:

1. Convert CIS Infinity Version 3 database to CIS Infinity Version 4 database
2. Run V3 to V4 Conversion process and deliver Data Validation Report
3. Review and deliver initial V4 data conversion load with Lake County
4. Time the process to convert and load data
5. Configure generic Information Bars
6. Update conversion scripts, if required
7. Deliver converted Billing Formulas
8. Deliver Bill Prints, Receipts and Notices
9. Provide on-going issue resolution
10. Time the process to convert and load data

COUNTY DELIVERABLES:

1. Refresh Version 3 Test Environment from Version 3 Production Environment
2. Review and approve the Data Validation Report
3. Run reports currently used by Lake County for balancing system in V3 in V3 and V4 to confirm versions are in balance
4. Load refreshed Version 4 test database onto Advanced FTP site (required for troubleshooting and billing formula conversion)
5. Identify Baseline Accounts for testing

6. Configure filters/saved reporting criteria and hyperlinks
7. Create and execute test scripts, document results and share with AUS
8. Log and re-test issues

2. Integrated Testing Cycle (ITC)

ITC is intended to exercise full scale testing of the system incorporating the testing of interfaces including Infinity.Link.

ADVANCED DELIVERABLES:

1. Deliver Interfaces including interface/repointing of Infinity.Link to Version 4
2. Run V3 to V4 Conversion process and deliver Data Validation Report
3. Update conversion scripts, if required
4. Provide on-going issue resolution
5. Time the process to convert and load data

COUNTY DELIVERABLES:

1. Refresh Version 3 Test Environment from Version 3 Production Environment
2. Review and verify Data Validation Report
3. Configure User Security
4. Deliver Custom Reports, if applicable
5. Execute end to end testing and document results
6. Log and re-test issues

3. User Acceptance Testing (UAT)

The final phase of testing is UAT. Only critical path items will be altered during this phase as agreed upon by both parties after analyzing the risk of introducing these changes. Lake County's team will test every billing cycle during this phase to ensure that every account calculates correctly. Lake County will also perform identified processes in parallel in CIS Infinity Version 3 and in CIS Infinity Version 4 and compare the outcomes.

Once complete, the UAT constitutes acceptance of the system as ready for Go Live. In combination with staff training readiness and organization readiness, the UAT and its acceptance help to drive the Go/No decision and the Go Live date.

ADVANCED DELIVERABLES:

1. Run V3 to V4 Conversion process and deliver Data Validation Report
2. Update conversion scripts, if required

3. Provide on-going issue resolution
4. Time the process to convert and load data

COUNTY DELIVERABLES:

1. Refresh Version 3 Test Environment from Version 3 Production Environment
2. Review and verify Data Validation Report
3. Execute parallel testing and document results
4. Log and re-test issues
5. Create cut-over issues list

Phase 5 - Transition to Go Live

Go/No Go Criteria

Lake County will assist Advanced in the construction of Go/No-Go criteria. These criteria shall be used to determine whether or not to proceed Transition to Go Live. Criteria shall be measured on a weekly basis starting no later than the commencement of User Acceptance Testing. When all criteria is met, the County will issue formal authorization to proceed with the Cut-Over Plan to production.

Cut Over Plan

The Advanced and County PM will develop a Cut-Over Plan in preparation for a final transition to live. This plan details the steps and responsibilities for Advanced and Lake County to transition CIS Infinity to Lake County's production (live) environment. The Cut-Over Plan will include but not be limited to the following items:

- Emergency contact information
- Detailed steps and timing of when data extract is obtained and data conversion is returned
- Ordered steps for ensuring balancing of the system
- Post-cut-over checklist
- A formal release from Advanced that documents that the system has been handed to the County in full balance

Go Live Data Refresh and Conversion

During this phase no activity will occur on the CIS Infinity Version 3 environment in order to enable a final balance to be obtained. Final data extraction will be delivered to Advanced in an expedient manner. The CIS Infinity Version 3 environment will be read only mode after this point, and no new data is to be entered. Lake County will run Month End/Year end reports from CIS Infinity Version 3 environment and produce balance reports and hold these reports to be used on the Transition Day.

Cut over to Live

At least one complete day is required to transition and typically will occur over a weekend. During this day, inquiry only functionality will be available in Version 3. Once Version 4 is ready for production use, it will be released to the client. During the transition, the Payment functionality on Infinity.Link will be disabled until the production V4 instance is released. Once V4 is in production, Advanced will re-enable the Payment functionality for Infinity.Link.

The County will be required to review and approve all balancing reports and formally authorize transition to the Version 4 system. The production system will not be deemed ready to move from V3 to V4 until written authorization is received.

CIS Infinity Live

Advanced will assist Lake County throughout the upgrade period to identify and respond to any needs and concerns. A meeting will be arranged between the County's Project Manager and the Advanced Project Manager two weeks post live to discuss any remaining issues and scheduling.

ADVANCED DELIVERABLES:

1. Deliver jointly developed Go/No-Go criteria
2. Deliver jointly developed Cut Over Plan
3. Run V3 to V4 Conversion and deliver Data Validation Report
4. Provide remote Go Live assistance (1 Week)
5. Deliver balancing reports

COUNTY DELIVERABLES:

1. Assist in creating Go/No criteria
2. Assist in creating Cut Over Plan
3. Provide Go Live V3 data refresh extract
4. Review and verify Data Validation Report
5. Review and approve balancing reports
6. Provide formal authorization of Go Live

Estimated Timeframe

Typically, upgrades from CIS Infinity, Version 3 to CIS Infinity, Version 4 take about 8 months.

The following is a high-level overview of a project schedule. Dates are determined at the onset of the project.

Task Name	Duration	Start	Finish	Assigned To
CL ENT - V4 Upgrade Project				
Sales				
SOW Signed				Sales/CLIENT
Pre-Planning				
Pre-Planning call				AUS PM
AUS - Create and send Project Contact List				AUS PM
CL ENT - Identify Core Team and complete Contact List				CL ENT
AUS - Create Smartsheet Testing Database				AUS PM
AUS - Create SFTP site				AUS PM
CL ENT - Determine Data Cut off date (must be post V3 Implementation)				CL ENT
CL ENT - Review V3 Custom Reports to determine if needed in V4				CL ENT
CL ENT - Provide V3 CIS Prod db to AUS via SFTP				CL ENT
CL ENT - Provide V3 CIS Application folder to AUS via SFTP				CL ENT
CL ENT - Create Baseline Account list				CL ENT
CL ENT - Document As Is Business Processes				CL ENT
CL ENT - Review and Update Smartsheet Test db				CL ENT
CL ENT - Create Environments				
CIS V3 Conversion				CL ENT
V4 TEST				CL ENT
V4 PROD				CL ENT
Link V3 TEST				CL ENT
Setup AUS User access to CLIENT Environment				CL ENT
CL ENT - Environment Ready				CL ENT
System Audit				
AUS - Receive CLIENT V3 db and Application folder				AUS DEV/Conve
AUS - V3 Data Integrity Check				AUS DEV/Conve
AUS - Submit V3 Data Integrity Report to CL ENT				AUS DEV/Conve
CL ENT - V3 Data Clean up (based on Integrity Report)				CL ENT
AUS/CL ENT - Review Integrity Check findings via call				AUS DEV/Conve
CL ENT - Provide cleaned up db to AUS				CL ENT
AUS - Rerun Integrity check				AUS DEV/Conve
AUS/CL ENT - Joint Discovery Session (Remote)				AUS DEV/PM/Te
System Conversion (AUS Items)				
Rate Formulas				AUS DEV/Tech
Interfaces (SOW)				AUS DEV/Tech
Beacon Meter Export				AUS DEV/Tech
Beacon Meter Import				AUS DEV/Tech
ACH Export				AUS DEV/Tech
Paymentus IVR Import				AUS DEV/Tech
Melissa Data Export				AUS DEV/Tech
Melissa Data Import				AUS DEV/Tech
Checkfree Payment File Import				AUS DEV/Tech
User Controls				AUS DEV/Tech
Bookmarks				AUS DEV/Tech
Filters				AUS DEV/Tech
Letters				AUS DEV/Tech
Actions				AUS DEV/Tech
Service Orders				AUS DEV/Tech
Bill Print				AUS Bill Print Sp
Receipts				AUS Bill Print Sp
AUS Created Custom Reports				AUS Bill Print Sp
AUS - V4 System Spot check and testing				AUS Tech/Conve
AUS - Installation of V4 System on CLIENT servers				AUS Tech
AUS Items ready for CLIENT Testing				
Kick Off				
AUS - Kick Agenda created and distributed				AUS PM
AUS/CL ENT - Kickoff Meeting (Remote)				AUS PM/CLIENT
AUS - Deliver Project Schedule				AUS PM
CL ENT - Approve Project Schedule				CL ENT PM
AUS - Resourcing				AUS PM
CL ENT - Resourcing				CL ENT PM
Core Team Training (Remote)				
V3 to V4 Differences				AUS Trainer
Security				AUS Trainer
Smartsheet Test Database tutorial				AUS PM
Core Team Training Completed				
System Conversion (CL ENT Items)				
CL ENT Created Custom Reports				CL ENT
Generic Information Bars				CL ENT

User Security	CL ENT
Hyperlinks	CL ENT
V3 Data Cleanup (where applicable)	CL ENT
Smartsheet Test Script review and completion	CL ENT
CL ENT - Ready for Functional Test Phase	
Functional Test Phase	
Data Refresh	
CLIENT - Provide V3 Data to AUS V3 Conversion server	CL ENT
AUS - Run Integrity Check	AUS DEV/Conve
AUS - Run Data Conversion	AUS DEV/Conve
AUS/CL ENT - Time Data Conversion and Document	AUS DEV/Conve
AUS - Provide V3-V4 Validation Report	AUS DEV/Conve
System ready for Functional Testing	
Testing	
CLIENT - System Testing	CL ENT
CLIENT - Log Issues Into Team Support	CL ENT
AUS - Testing Support and Ticket updates	AUS Tech/Conve
CLIENT - Smartsheet Test database updates	CL ENT
AUS/CL ENT - Weekly Progress Review	AUS PM/CLIENT
AUS - Weekly Status Reports	AUS PM
AUS - Submit Functional Testing Exit Criteria	AUS PM
AUS/CL ENT - Functional Exit Criteria Approval	AUS PM/CLIENT
AUS/CL ENT - Go/No-Go for ITC Testing	AUS PM/CLIENT
Completion of Functional Test Phase	
Integration Testing (ITC) Test Phase	
Data Refresh	
CLIENT - Provide V3 Data to AUS V3 Conversion server	CL ENT
AUS - Run Integrity Check	AUS DEV/Conve
AUS - Run Data Conversion	AUS DEV/Conve
AUS/CL ENT - Time Data Conversion and Document	AUS DEV/Conve
AUS - Provide V3-V4 Validation Report	AUS DEV/Conve
System ready for ITC Testing	
Testing	
CLIENT - System Testing	CL ENT
CLIENT - Log Issues Into Team Support	CL ENT
AUS - Testing Support and Ticket updates	AUS Tech/Conve
CLIENT - Smartsheet Test database updates	CL ENT
AUS/CL ENT - Weekly Progress Review	AUS PM/CLIENT
AUS - Weekly Status Reports	AUS PM
AUS - Submit ITC Testing Exit Criteria	AUS PM
AUS/CL ENT - ITC Exit Criteria Approval	AUS PM/CLIENT
AUS/CL ENT - Go/No-Go for UAT Phase	AUS PM/CLIENT
Completion of ITC Test Phase	
End User Training (2 weeks)	
AUS/CL ENT - Establish End User Training agenda	AUS PM/CLIENT
CL ENT - Identify Participants	CL ENT PM
AUS/CL ENT - Conduct End User Training	AUS Trainer/CLII
Completion of End User Training	
UAT Phase	
Data Refresh	
CLIENT - Provide V3 Data to AUS V3 Conversion server	CL ENT
AUS - Run Integrity Check	AUS DEV/Conve
AUS - Run Data Conversion	AUS DEV/Conve
AUS/CL ENT - Time Data Conversion and Document	AUS DEV/Conve
AUS - Provide V3-V4 Validation Report	AUS DEV/Conve
System ready for UAT Phase	
Testing	
CLIENT - Parallel Testing and reconciliation	CL ENT
CLIENT - Log Issues Into Team Support	CL ENT
AUS - Testing Support and Ticket updates	AUS Tech/Conve
AUS/CL ENT - Weekly Progress Review	AUS PM/CLIENT
AUS - Weekly Status Reports	AUS PM
AUS - Submit Go/No-Go Criteria for Go-Live	AUS PM
AUS/CL ENT - Go/No-Go Criteria Approval	AUS PM/CLIENT
AUS/CL ENT - Go/No-Go for Go-Live	AUS PM/CLIENT
Completion of UAT Phase	
Go-Live Preparation	
AUS/CL ENT - Create Go-Live checklist	AUS PM/CLIENT
AUS/CL ENT - Confirm Checklist tem readiness	AUS PM/CLIENT
Ready for Go-Live	

Go-Live

Data Refresh

CLIENT - Provide V3 Data to AUS V3 Conversion server
AUS - Run Integrity Check
AUS - Run Data Conversion
AUS - Provide V3-V4 Validation Report and system signoff
CLIENT - Balancing and system signoff

CL ENT
AUS DEV/Conve
AUS DEV/Conve
AUS Conversion
CL ENT PM

System Live on V4

Supporting Activities

AUS support
CLIENT - End User Support and coaching

AUS Tech/PM
CL ENT Core Te

Stabilization

AUS - Post Live Ticket investigation and work
CL ENT - Post Live Ticket testing and closure
AUS - Schedule Support Transition Call
AUS/CL ENT - Support Transition Call
Transition to Support

AUS Tech/Conve
AUS Core Team
AUS PM
AUS PM/Support
AUS PM/Support
AUS PM

Project Closure

Roles and Responsibilities

The table included here 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.

Advanced Team	
Role	Responsibilities
Project Sponsor	<ul style="list-style-type: none"> • Steer project • Serve as project champion • Resolve major project issues • Initial point of escalation
Project Manager	<ul style="list-style-type: none"> • Plan project approach, timetable, priorities, and resources • Coordinate Advanced and partner resources • Produce project implementation documentation including communication, training, risk, and change management plans etc.) • Lead all weekly project meetings • Act as a liaison between Advanced and the County's implementation teams • Monitor project status and communicate issues and risks to the project team and steering committee for resolution • Update project schedule on a monthly basis, or as required, based on outcomes of the project status • Ensure timely resolution and updates to Team Support items
Technical Lead	<ul style="list-style-type: none"> • Conduct discovery session to review the required configuration requirements • Configuration and conversion of all interfaces, billing formulas, bill prints, receipts, and notices • Assist in system testing and overall quality assurance • Configure and assist in testing of all interfaces • Work directly with Core Team to resolve system issues throughout the implementation
Conversion Lead	<ul style="list-style-type: none"> • Conduct V3 integrity check prior to initial data conversion to V4 • Provide integrity output and resolution of data issues • Develop data conversion routines • Rollout data conversion to the Core Team • Complete data conversion and validation during each testing phase
Trainer	<ul style="list-style-type: none"> • Provide all training agendas

	<ul style="list-style-type: none"> • Provide training documentation • Lead training sessions
Specialists	<ul style="list-style-type: none"> • Various specialist roles including Crystal Reports, Infinity.Link/ Infinity.Link Enterprise
Lake County Team	
Role	Responsibilities
Project Sponsors (Includes Dir. Customer Service, Dir. Utilities, Dir. Finance)	<ul style="list-style-type: none"> • Steer project • Serve as project champion • Resolve major project issues
Project Manager	<ul style="list-style-type: none"> • Work closely with Advanced PM to develop project plan approach, timetable, priorities, and resources • Coordinate resources and internal activities required to deploy system • Report project status to steering committee; identify changes in project and scheduling • Act as a liaison between implementation team and Advanced • Oversee project communications at the Agency • Review and approve deliverables
Core Team (typically 4- 6 individuals)	<ul style="list-style-type: none"> • Work with Advanced to determine system configuration requirements • Identify and document existing processes. Assist project manager in project management in areas such as scheduling • Communicate business issues to the Advanced implementation team • Test system functions throughout all testing phases • Assist other subject matter experts with testing • Use Team Support software to log errors and omissions • Provide front line assistance to end users • Participate in Discovery session • Identify and correct data conversion issues • Oversee final data acceptance
SMEs/System Testers	<ul style="list-style-type: none"> • Provide input to core team on areas of expertise during Discovery session • Assist core team in process development and improvement. • Assist core team with testing
DBA	<ul style="list-style-type: none"> • Provide database support
IT Support Staff	<ul style="list-style-type: none"> • Ensure hardware, network and field communication is available and configured (servers, mobile field devices)

	<ul style="list-style-type: none"> • Assist Advanced in the installation process and deployment of the software • Ensure server and desktop hardware is available, tested, and operational. • Assist Advanced with system configuration. • Perform administrative functions – e.g. preparation of training rooms • Troubleshoot network, hardware, and other system problems
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- **Proposer shall indicate the ability to meet the project timeline. If this timeline cannot be met, please propose a revised timeframe for consideration.**

Advanced can meet the project timeline indicated in the RFP which was as follows.

The County anticipates an implementation rollout strategy commencing in November 2021 with a go-live date of December 1, 2022.

- **Provide project team resumes for key members of the implementation team expected to be on the County's project.**

You will be assigned a Project Manager, Technical Consultant, and a Conversion Lead 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 for proposed project staff to illustrate what a typical team for a project of the County's size and scope would look like.

Roopesh Ramkissoon **Project Manager**

Professional Background

As Project Manager, Roopesh is responsible for the successful implementation of CIS Infinity, Version 4. He oversees all steps of the project life cycle, acting as a liaison between Advanced resources and client staff to complete a successful project. Roopesh has fiscal responsibility for the implementation projects, maintains client and internal communication and ensures timely completion of deliverables.

Roopesh is a certified Project Management Professional (PMP) and has over 10 years of utility customer service and operations experience

Previous to joining Advanced, Roopesh was employed by Iron Data Solutions as a Business Analyst. Roopesh helped in the successful implementation of the Iron Data Solution application at many municipalities.

Areas of Expertise

Roopesh has strong skills in the following areas:

Project Management

- Certified Project Management Professional with 5 years of experience in project management and coordination. Effectively manages and motivates cross-functional teams while staying on schedule, on budget, and within scope.

Relationship Management & Communication

- Successfully manages relationships and communicates with and between internal and external clients, teams, business partners, and vendors.

Utility & Customer Service Knowledge

- Understands the meter-to-cash cycle and customer service best practices as they relate to utilities

Experience

Roopesh is currently working with the **City of Brantford, ON, the City of Bellevue, WA, Fulton County, GA and the City of Colton, CA** to implement CIS Infinity, Infinity.Link, and as well as multiple interfaces.

Education

PMP Certification

Project Management Institute

MCSE

Microsoft Certified System Engineer

CompTIA A+ and Network + Certified Technician

Bachelor of Business Administration (BBA)

University of Guelph

Business Administration Diploma with Emphasis in Finance

Business Analyst with Honors

Certificate with Canadian Institute of Management

Certificate of Business Studies

Humber Institute of Technology and Advance Learning

Previous Work Experience

Iron Data Solutions

Business Analyst

- Worked with clients to design business processes and workflows to efficiently accomplish business critical functions.
- Managed the Software Development Life Cycle using Agile and Scrum methodologies.
- Gathered, analyzed and documented business requirements.

Forsys Corp

System Analyst

- Served as a liaison between the programmers and clients in designing and implementing various functionality.
- Analyzed and made recommendations to improve clients' current IT infrastructure and business processes.
- Provided documentation and training to clients to ensure they were able to utilize the software effectively.

IBM Canada

Technical Support Analyst

- Developed strategic plans to ensure that monthly Service Level Agreement was achieved.

- Worked with clients to identify their computer problems and resolving their issues as effectively and effectively as possible.

Shiam Beeharry **Technical Consultant**

Professional Background

Shiam's role as a Technical Consultant involves assisting with the configuration, deployment and system optimization of CIS Infinity, Version 4.

Shiam has over 10 years of IT client support experience.

Areas of Expertise

Shiam has strong professional skills in the following areas:

Technical Background

- With a degree in Systems Engineering and a degree in Computational Science, Shiam has a solid background in dealing with technical systems and integration within a complex network. Moreover, he has solid experience in reporting and data analysis.

Client Relationships

- With years of experience working with different customer bases, Shiam has developed a strong ability and skills to establish stable, honest, and trusting client relationships.

System Support

- With a strong foundation in Technical support, this has enhanced Shiam's ability to troubleshoot issues with professionalism and ease.

Experience

Murfreesboro, TN

- Participated in discovery session for clients upgrading from CIS Infinity, Version 3 to CIS Infinity, Version 4.

Padre-Dam, CA and Brantford, ON

- Assisted clients during the conversion phase from CIS Infinity, Version 3 to CIS Infinity, Version 4.

Education

Master of Science

Computational Science and Engineering

University of Technology, Mauritius

Previous Work Experience

Bell Quebec - Canada

Support Analyst

Optimized business processes for the support department and technical support for internal clients. Supported external clients for connection issues.

Ehsan Ahmad

Technical Consultant (Conversion)

Professional Background

Ehsan offers over 15 years of experience as a Data Conversion Specialist and Programmer Analyst. He has worked with various information software systems and has strong programming experience and skills.

Areas of Expertise

Ehsan has strong skills in the following areas:

- SSIS, SQL Server Management Studio, SQL Stored Procedures/Functions, VBA Language, Bottom up Address parsing techniques, String Manipulations, Query Optimizations, Indexed objects and Data Views, Data Conversion, Legacy Data Analysis, Data Mapping, Data Scripting, Data Validation, Data Cleansing, Data Scrubbing, Data Integration, SQL Server Studio, MS Access, SQL Stored Procedures, SQL Functions, SQL Views Database Programming using SQL Server /Oracle
- In depth experience of working with large data sets and Data Conversion Database Design
- Proficient in developing and deciding the data conversion strategies.
- Thoroughly understanding the requirements and constraints on the application
- Ensuring that there is no data loss at all in between the conversion

- Programming and Testing

Experience

Ehsan has designed conversion programs and successfully converted clients – including: Guyana Power and Light; Woodbury, MN; City of Santa Rosa, CA and City of Richland, WA - from their legacy systems to CIS Infinity.

Education

Certification in MS SQL Server, VB, MS Access, ASP, Windows NT 4 (NCR)
M.SC in Computer Science
B.SC in Math and Physics

Previous Work Experience

Gawsworth Systems

- Designed and Developed Front-End GUI using Visual Basic .NET

IPC Information Systems

- Designed and developed VB Functions and Procedures for RMS Software Application

PEL Canada

Designed and developed business software applications for CRM, POS, EDI, Sales and Inventory and Web Services

Justin Yu Trainer

Professional Background

Justin's role as a Trainer has involved enhancing his knowledge of CIS Infinity and complementary solutions in order to provide training and support to new clients, and assisting with system testing.

Areas of Expertise

Justin has strong professional skills in the following areas:

Functional Testing

- Assisted clients with data validation and functional testing of processes. Has a strong understanding of CIS Infinity and excels at identifying best practices for utilities and troubleshooting any issues that arise.

Training

- Ensures successful knowledge transfer to Core Team members and End Users.

Customer Service

- Has over 10 years of experience in providing positive customer service.

Experience

Spartanburg Water, SC

- Successfully completed all Core Team and End User Training on CIS Infinity
- Provided testing and go live assistance

City of Westerville, OH

- Testing assistance and helped define process for efficiency
- Provided refresher training to the Core Team Members

Olivenhain Municipal Water District, CA

- Assisted in providing Core Team Training
- Functional testing assistance

Education

**Hospitality and Tourism Administration,
Advanced Diploma**

Centennial College, Scarborough, Ontario

**Pharmaceutical Biotechnology
Specialization**

University of Ontario Institute of
Technology, Oshawa, Ontario

Previous Work Experience

Sears Canada

Major Appliances Product Expert/Sales

- Provided product information on the latest technologies incorporated in major appliances for staff members and customers.
- Follow up with customers to ensure they are satisfied with the product.

Paul Wiersma
Reporting Analyst

Professional Background

Paul brings with him excellent analytical and critical thinking skills which assists him greatly as a Report Analyst.

Prior to joining Advanced, Paul was employed by JF Fabrics for 6 years. 5 years as IT/Operations Coordinator reporting directly to the VP of Operations and 1 year as Sales Administration Coordinator. His role as Operations Coordinator was inclusive of tasks pertaining to IT, Sales, Customer Service, Accounting, Website Development, Logistics, Inventory, and Marketing.

Areas of Expertise

Crystal Reports

- Advanced report design, development, maintenance, streamlining, and trouble shooting.

SQL

- SQL allows for data verification and ensuring reports are accurately displaying information as intended.

Microsoft Office

- Office has many tools used by businesses every day, especially excel. Excels has great reporting capabilities and can produce impressive results.

Experience

Columbia, MO

- Developed and QA'd several custom reports based off legacy formats. e.g., KWH Demand Load Factor & Active Solid Waste Accounts by Flat Rate Codes.

Olivenhain, CA

- Assisted with report development and improvement for original legacy reports based on report specifications. e.g., Drought Violator Comments and Monthly AR Recap reports.

Spartanburg, NC

- Troubleshooting and correcting bill print issues as they arise.

Education

Crystal Reporting Advanced Certification Level III, 2014

Cry-sta-lize – Toronto, ON

Crystal Reporting Certification Level I&II, 2011

Cry-sta-lize – Toronto, ON

Previous Work Experience

Joanne Fabrics, Inc.

IT | Operations Coordinator

- Designed, tested, and maintained existing reports company-wide for monthly, quarterly, and annual reports (Sales, Operations, Customer Service, Design, and Accounting) for both AS400/IBM iSeries and Crystal reports.
- AS400/IBM iSeries data base management, data analysis, bug fixes, data conversion and update via CL and DB2 SQL.
- Generated all customer price lists via Crystal reports, managed price input, price increases, gross profit auditing, publishing, as well as IT support for online customer pricing, orders, and bug fixes

E. Technical Requirements and Security

The following will be considered:

Please note we are proposing that CIS Infinity be hosted on the Expedient Enterprise Cloud.

- **Expertise and ability to integrate with Microsoft Azure Active Directory.**

Expedient Enterprise Cloud can provide AD services or support the County's AD implementations, Microsoft Azure Active Directory is supported.

- **Ability to secure communication between internal and external systems via current encrypted protocol such as TLS 1.2.**

vSan Disk Encryption at Rest / and in motion provided in solution design. Network Micro-Segmentation (NSX) is also provided for additional customization.

We also provide IPsec tunnels for secure Data Transfer.

- **Process to protect against unauthorized access to customers data including Social Security Number, Credit/Debit Card Numbers, Bank Account Numbers, etc.**

All information for encrypted fields – as determined by the organization - is encrypted in the back-end database using AES 256. Furthermore, Advanced works with our clients to ensure that all transmissions are properly SSL certified with at least 128 bit encryption using 1.2 TLS standard.

Field-level masking (red flagging) is separately configured from encryption (that is, a field can be masked but not encrypted, or vice versa), and based on the ability to see PII defined for the security group to which the user belongs, is either shown in the CIS Infinity application masked or un-masked.

- **Process to protect against unauthorized access to electronic signatures, PIN's, etc.**

CIS Infinity does not use nor require nor recommend storage of signatures and PINs. If the customer wants to store this information they can apply red flagging and encryption.

Further, CIS Payment Engine is Red Flag and PA-DSS compliant (PCI certified).

Our CIS payment engine PA-DSS V3.2 certification information is available at

https://www.pcisecuritystandards.org/assessors_and_solutions/payment_applications?agree=true, and then by searching for Advanced Utility Systems.

The screenshot shows a web browser window with the URL <https://www.pcisecuritystandards.org/asses>. The page title is "Find a Validated Payment Application". There is a search bar with "COMPANY NAME" and a dropdown menu showing "Advanced Utility Systems" with a green checkmark. Below the search bar, there are filters for "APPLICATION NAME", "ACCEPTABLE FOR NEW DEPLOYMENTS", and "TYPE". A button labeled "EXPORT LIST" is also present. The results section shows "Results: 1" and a table with the following data:

COMPANY	VALIDATION NOTES	DEPLOYMENT NOTES	REVALIDATION DATE	EXPIRY DATE	VALIDATED BY PA-QSA
Advanced Utility Systems					
CIS Infinity Payment Engine					
Version #: 3.3.3.2 App Type: Payment Gateway/ Switch Target Market: Retail, Electric, water, gas and multi-service utilities in North America, Caribbean and South America. Reference #: 16-03.00335.004 Tested Platforms/Operating Systems: Windows Server 2008 R2, Windows 7, Windows Server 2012 R2 Service Pack/Build/Version: WIN 7 Pro SP1, WIN Server 2008 R2 Enterprise, WIN Server 2012 R2 Standard	Validated According to PA-DSS (PA-DSS v3.2)	Acceptable for New Deployments	25 Jan 2019	28 Oct 2022	Datassurant

- **Process to protect against unauthorized intrusion, access, data corruption, etc.**

Intrusion detection, anti-virus, firewalls, 2FA, vulnerability scanning, sky ATP services, and encryption can all be provided as a service.

Expedient Enterprise Cloud utilizes highly available pairs of Juniper vSRX virtual firewalls to provide next-gen firewall services to clients. This firewall platform includes Juniper's Unified Threat Management and Advanced Threat Prevention capabilities. This platform is provided as a co-managed services with the client maintaining full administrative access to the devices. This offering is provided by Expedient Enterprise Cloud directly.

- **Process to protect against issuance of unauthorized payments, bank credits, etc.**

Expedient Enterprise Cloud can provide an ROC for validation and Payment Card Industry Data Security Standard (PCI DSS) Brand Specific Steps Visa Specific Steps Required Steps for Potentially Compromised Entities Preserve Evidence

To identify the root cause and facilitate investigations, it is important to ensure the integrity of the system components and environment by preserving all evidence.

Do not access or alter compromised system(s) (e.g., do not log on to the compromised system(s) and change passwords; do not log in with administrative credentials). Visa strongly recommends that the compromised system(s) be taken offline immediately and not be used to process payments or interface with payment processing systems.

Do not turn off, restart, or reboot the compromised system(s). Instead, isolate the compromised systems(s) from the rest of the network by unplugging the network cable(s) or through other means.

Identify and document all suspected compromised components (e.g. PCs, servers, terminals, logs, security events, databases, PED overlay's etc.).

Document containment and remediation actions taken, including dates/times (preferably in UTC), individuals involved, and detailed actions performed.

Preserve all evidence and logs (e.g. original evidence such as forensic image of systems and malware, security events, web logs, database logs, firewall logs, etc.). Provide Visa Initial Investigation Report Within three (3) business days of a suspected or confirmed account data compromise, provide the Visa Initial Investigation Report to the acquiring bank or directly to Visa. Execute Notification Plan Immediately notify all relevant parties, including your:

Internal incident response team and information security group • Merchant bank (also known as your acquirer or acquiring bank) o If you do not know the name and/or contact information for your merchant bank, contact the Visa Risk team for assistance: U.S. – +1 (650) 432-2978 or USFraudControl@visa.com Canada – +1 (416) 860-3872 or CanadaInvestigations@visa.com <https://support.expedient.com> Latin America & Caribbean – +1 (305) 328-1593 or LACFraudInvestigations@visa.com Asia Pacific (AP) and Central and Eastern Europe, Middle East and Africa (CEMEA) – VIFraudControl@visa.com

Manufacturer of the impacted payment device if you have determined that the incident involves the compromise of a PIN Entry Device (PED), specifically if it is a PCI PTS-approved device. • Legal department to determine if laws mandating customer notification are applicable. It is strongly recommended that you also immediately notify:

The appropriate law enforcement agency in the event of an account data compromise.

Federal law enforcement if the compromise is in the United States. The United States Secret Service Electronic Crimes Task Forces (ECTF) focuses on investigating financial crimes and can assist with incident response and mitigation of an account data compromise. Visit www.secretservice.gov/investigation for ECTF field office contact information. Perform Forensic Investigation Visa may require a compromised entity to engage a Payment Card Industry Forensic Investigator (PFI)

to perform an independent forensic investigation. If advised that a forensic investigation is required, the following timeline must be followed.

Upon discovery of an account data compromise, or receipt of an independent forensic investigation notification, an entity must:

- Engage a PFI (or sign a contract) within five (5) business days
- Provide Visa with the initial forensic (i.e. preliminary) report within ten (10) business days from when the PFI is engaged (or the contract is signed)

Provide Visa with a final forensic report within ten (10) business days of completion of the review. The PFI cannot be an organization that is affiliated with the compromised entity or has provided services to the compromised entity such as previous PFI investigation, Qualified Security Assessor (QSA), advisor, consultant, monitoring or network security support, etc. Visa will not accept forensic reports from non-approved PFI forensic organizations. PFIs are required to provide forensic reports and investigative findings directly to Visa. A list of approved PFI organizations is available at:

www.pcisecuritystandards.org/assessors_and_solutions/pci_forensic_investigators

Provide All Exposed Accounts All compromised Visa accounts (known or suspected) must be uploaded to Visa's Compromised Account Management System (CAMS) within five (5) business days from the first to occur of the following events: (a) the date Visa requests account numbers, (b) a Window of Exposure (WOE) is determined, or (c) discovery of compromised account data is identified.

- Entities should work with their acquiring bank to upload accounts

For more information or assistance, contact Visa at: CAMS@Visa.com

Visa Initial Investigation Report

Upon notification of a suspected or confirmed account data compromise, compromised entities must initiate a preliminary investigation of all potentially impacted systems and those of any third-party service providers. Compromised entities must share the findings with Visa as well as their acquiring bank, if applicable. A preliminary investigation is not the same as a PFI preliminary report. The initial investigation will assist Visa in understanding the compromised entity's network environment and potential scope of the incident. To comply with Visa's investigation requirements, the entity must submit securely (e.g., encryption, PGP encryption, Visa Online Secure Email, etc.) the following information within three (3) business days of a suspected or confirmed account data compromise: (refer to <https://usa.visa.com/dam/VCOM/download/merchants/cisp-what-to-do-if-compromised.pdf> for the form).

MasterCard Specific Steps

The following Account Data Compromise (ADC) User Guide must be followed in the event of an account compromise with MasterCard. ADC Event Reporting Using Manage My Fraud and Risk Programs A customer must report an ADC Event or Potential ADC Event through the Manage My Fraud and Risk Programs application. For information about the required customer roles, responsibilities, and associated time frames in response to an ADC Event or Potential ADC Event, refer to MasterCard Security Rules and Procedures, section 10.2. To report an ADC Event or Potential ADC Event to MasterCard, a customer must use the ADC Reporting Form (ARF) located within the Manage My Fraud and Risk Programs application on MasterCard Connect™. Events include, but are not limited to, the following:

A customer (acquirer or issuer) or any of its agents becoming aware of an ADC Event or Potential ADC Event in or affecting any system or environment of the customer or its agents.

An issuer experiencing elevated fraud or otherwise suspecting an ADC Event or Potential ADC Event.

A responsible customer must report an ADC Event within twenty four (24) hours of becoming aware of the Event or Potential Event, and on an ongoing basis thereafter to MasterCard all known and or suspected facts concerning the ADC Event or potential ADC Event. To obtain access to the Manage My Fraud and Risk Programs application, refer to section Manage My Fraud and Risk Programs - View MasterCard ADC Alerts of this manual. To report an ADC Event without access to Manage My Fraud and Risk Programs, refer to section ADC Event Reporting without the Use of Manage My Fraud and Risk Programs, outlined on Page 19 of MasterCard's Account Data Compromise User Guide. Discover Card Specific Steps

1. Within 24 hours of an account compromise event, notify Discover Fraud Prevention at (800) 347- 3083. Page | 23 888.227.9400 | <https://support.expedient.com>
2. Prepare a detailed written statement of fact about the account compromise including the contributing circumstances.
3. Prepare a list of all known compromised account numbers.
4. Obtain additional specific requirements from Discover Card. American Express Specific Steps Duty to Notify American Express As a Service Provider, if you know or suspect that Cardmember information has been accessed or used without authorization you must, as detailed fully in the Data Security Operating Policy:
5. Notify American Express immediately
6. Work with American Express and auditors to conduct a thorough audit of the incident
7. Provide any and all information, and follow all instructions requested by American Express regarding the incident If you believe that Cardmember information has been compromised, please contact your Client Manager or call immediately:

8. U.S. Caribbean and Bermuda: 1-800 AXP AMEX (297-2639) • Aruba: 800 - 1594

- **Security measures in place to ensure customer information is secure within the vendor's system.**

Expedient Enterprise Cloud follows NIST standards and is DPA for GDPR, HIPAA BAA, SOC 1 & 2 Type 2 + HITRUST, PCI DSS, EU-US & Swiss-US Privacy Shield attested provider. Expedient Enterprise Cloud can provide:

- Intrusion detection- Can be provided as a service if required with logging provided also
- Anti-virus- Symantec AV services can be provided
- Firewalls- Firewalls solutions can be provided. Juniper VSRXs and also NSX can be provided with advanced security service (UTM) with MGT.
- Vulnerability scanning, - VB services can be provided and requested on a as needed basis or quarterly
- Penetration testing, - Not provided as a service- advise using 3rd party
- Encryption (include description of protocols/algorithms),-VSAN encryption is provided
- Authentication and authorization protections and policies, including those involving passwords-2FA services and custom sign on polices can be provided.
- Removal of unnecessary network services- Network services can be configured as needed.
- Limiting of administrative access – Client controls Admin users and can limit user access
- Code review, - NA
- Logging- Logging can be provided for all sources in resource pools
- Employee training and other relevant safeguards – Expedient Enterprise Cloud Employees receive annual and bi- annual training on policies and compliance.
- **Ability to provide single sign on authentication.**

The County can create their own Active Directories or Expedient Enterprise Cloud can provide AD as a managed serviced. SSO can be supported if needed, discussion will be needed to finalize solution.

- **Backup process for continued uninterrupted services in the event of data transmissions issues and system unavailability.**

Expedient Enterprise Cloud has implemented a strategy for cyclical backup of data and programs. Expedient Enterprise Cloud utilizes various backup technologies software for distributed backup and recovery operations. For customers subscribing to the backup service, unless otherwise directed by the customer, daily backups are made of all content on the systems. If the customer is subscribing to tape based backup, the media is LTO based removable tape; if the customer is subscribing to disk based backup, the data is housed on a redundant array of independent nodes within a storage grid.

For those customers subscribing to off-site backup services, they may request offsite services be performed in one of two methods: (1) Customers may have their weekly full system backups copied to separate tapes and physically transported offsite, maintaining copies of the two most recent full backup's offsite.

(2) Customers may also have their data (in part or in total) transferred over to Expedient Enterprise Cloud's private network to tape libraries or storage systems in other Expedient Enterprise Cloud markets.

Encryption is provided for customers specifically requesting encryption.

Backup jobs are reviewed for successful completion. The OSC is responsible for reviewing reports that indicate successful completion of backup jobs. The Expedient Enterprise Cloud uses IBM's NETCOOL application to collect and consolidate alarms and events. If a backup (optionally, data duplication) job fails an alarm is generated in the NETCOOL application. The Expedient Enterprise Cloud has written procedures for backup job failures and established escalation procedures. If a backup job fails, the OSC is alerted and will follow procedures as listed on Expedient Enterprise Cloud's documentation site.

Should the OSC be unable to resolve the issue, a case is sent to the Systems Engineering Group for further review and resolution.

All customers have the ability to receive backup alerts and reporting information. Customers may receive errors or both errors and success messages specific for their hosts via email. Additionally, customers receive weekly summary reports which detail the hosts being backed up and the data backup amounts.

Procedures are followed to periodically test the quality and effectiveness of backup/restore processes and the quality of backup media. In addition to the opportunity to review backup logs, customers are given the opportunity to test recovery. Instructions for using the back-up software Modules to restore files are available at customer request. Help is also available from OSC Analysts in performing restores.

Backup files stored on-site are in a secure location. The Expedient Enterprise Cloud deploys backup servers that are configured on the network with an attached tape silo for performing backups. Gigabit Ethernet switches make the connections. Backup tapes are locked in the tape silo. Physical controls include video monitoring and key-fob/card access to the floor.

The Expedient Enterprise Cloud uses dedicated equipment for tape libraries.

The tape library is locked, with the keys held in the Operations Support Center lockbox and in a locked drawer of the Primary Backup Engineer.

Backup files are securely moved off-site and are delivered to the off-site location. For physically transported tapes, an unrelated third party vendor provides secure off-site storage of backup media. The LTO-3 backup tapes are handed to a badged employee of the vendor at a prescribed time and placed into a locked vehicle. Receipts are provided for the movement of tapes.

For data transferred electronically, the use of the Expedient Enterprise Cloud's private 10 Gigabit Ethernet WAN is utilized. Logical access controls to backups is provided. Managed Backup Services include the installation of the particular client on the customer's server(s) by either the customer or Expedient Enterprise Cloud personnel.

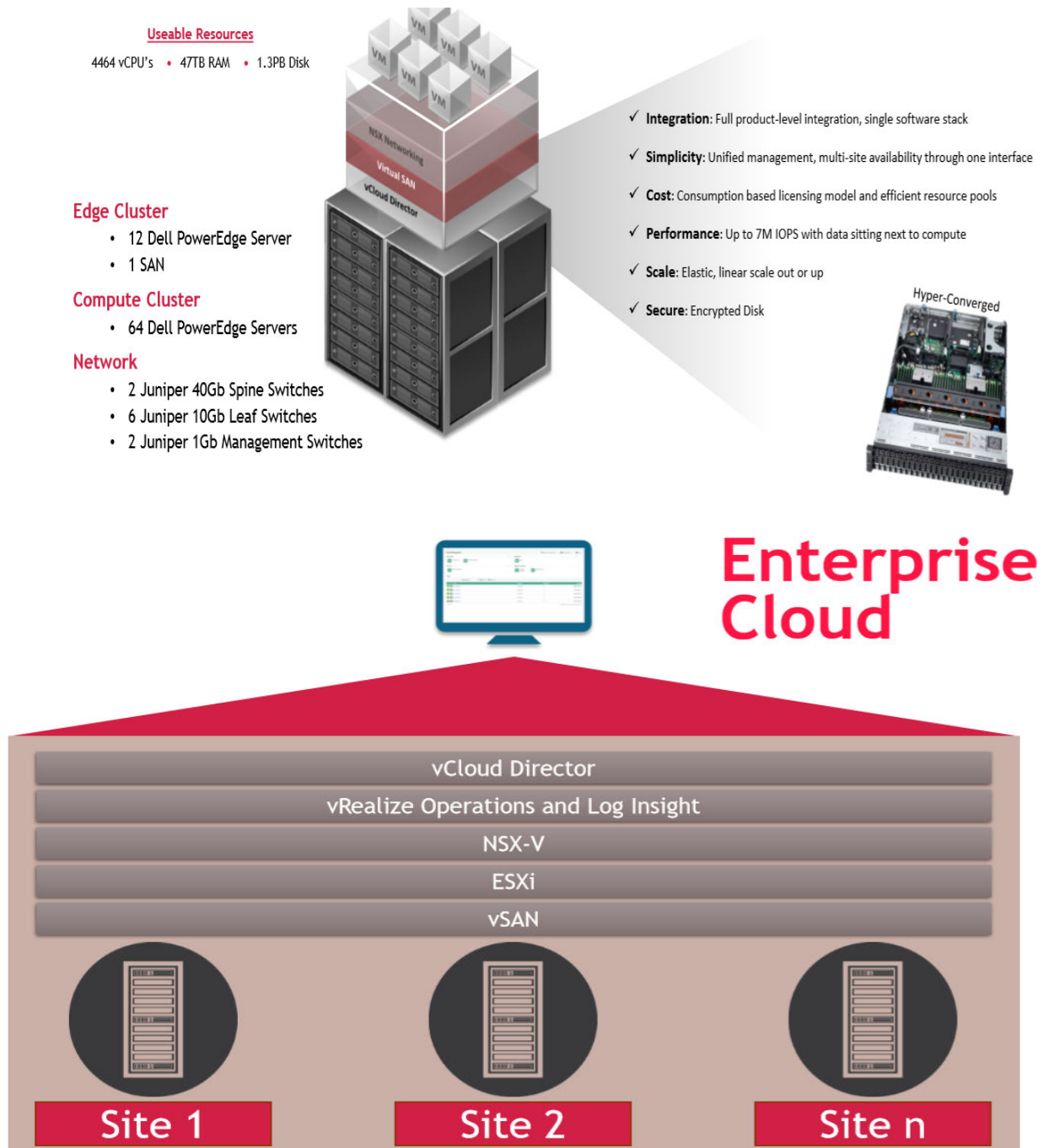
Administrative access to the server is required to install such a client. Where this is not possible, the client is provided to the customer for self-installation.

After client installation, configuration is done on the backup server. The server, based on IP, is put into a particular group. Groups are unique to a particular customer. No two customers may be in the same group, but customers may have multiple groups. Within the application, ACLs limit a customer's access to files and directories. Only the server which backed up the data may restore it.

This control is based on the server's IP. This ACL restriction may be relaxed should a customer desire that a server restore data from another of their servers.

Access is granted by written request.

- Listing of all hardware, software, periodic and one-time services to be provided.



Expedient Enterprise Cloud solution provides a compliant, secure, and agile environment to support go to market strategy. Harris employs only best-in-class technologies and infrastructure to deliver its services. This IaaS solution is powered by VMware on Dell Technologies. Harris will maintain all infrastructure, VMware licensing and capacity. Support will be serviced by the Harris Operations Support Center (OSC) staffed 24x7x365. This platform will be backed by a 100% SLA.

The foundation for this reliability is based on a tenured leadership, a debt-free and strong financial backing, and an elite group of skilled engineers, adherence to stringent processes, and a wide network of interconnected, Tier III+ data centers.

Expedient Enterprise Cloud has been recognized as a Top 10 (Ranked 7th) global managed services provider (MSP 501) due to our network and enterprise cloud services capabilities. We have also been recognized in Gartner's DRaaS Magic Quadrant for the last three years in a row. Collectively, these services create an environment to leverage Harris' enterprise solutions and expertise as part of our service. The footprint described will create a unified infrastructure, network, and secure environment with less complexity that can keep pace with the changing needs of the business.

Expedient Enterprise Cloud can provide Private Dedicated Cloud Solutions or Shared Cloud Environments that provide a compliant and secure solution.

- **Sufficient maintenance agreement that covers hardware repair and replacement.**

All Hardware maintenance is covered by Expedient Enterprise Cloud.

- **Detailed support agreement with approved service level agreement (SLA) that includes a dedicated support team.**

Expedient Enterprise Cloud provides 100% uptime SLA for all IAAS solutions.

Subject to certain exceptions, we shall use commercially reasonable efforts to cause the Services to be available 100% of the time ("Service Level Target"), as measured during each monthly service billing cycle. In the event any Services do not meet the Service Level Target, Customer may be eligible to receive a Service Credit.

The Harris Data Center operation support personnel receive a W2 from the Harris Data Center and are available 24x7x365.

- **Business Continuity Plan (BCP) & Disaster Recovery Services.**

Expedient Enterprise Cloud uses Cohesity, Vcav, and Zerto for DRaaS services. Backups and replicated environments are built to meet client requirements.

Customers can recall data via backup platform, or can initiate Push Button DR services in an event of DR.

All Expedient Enterprise Cloud Services are N+2 except for bandwidth which is N+8 to N+10 based on primary DC.

- **Lake County has a Cloud first strategy.**

We are proposing that CIS Infinity be hosted on the Expedient Enterprise Cloud.

F. Training Plan

Provide a training approach that will properly prepare staff, supervisors and other personnel on the day-to-day use of the new utility billing software. Provide training approach that will properly prepare County staff in the administration, management and any planned and unplanned maintenance of the new utility billing software.

Core Team Training will be conducted remotely via WebEx for the core team following the initial V4 conversion rollout. Users will be trained to ensure that they can access the system and navigate through CIS Infinity Version 4 for testing purposes. To ensure an efficient and effective parallel process, Advanced recommends setting up a separate area for testing and training. The core team training is designed to train users on the new user interface (UI) and changes in key functional areas including AccountView, System Administration, Security, Cash, Billing, Collections, Service Orders, Reports, and Inventory. Core Team training assumes users are familiar with Version 3 and the County's business processes and does not include introductory or basic training to users unfamiliar with Version 3 functionality and processes.

The following is the Training Agenda for the courses we provide:

V3 to V4 Upgrade

APPLICATION (30 mins)

1 – Getting Started

- ☐ Logging In

2 – File Menu

- ☐ Refresh Control Data
- ☐ SQL Logging
- ☐ Logging Out

3 – Options Menu

- ☐ Change Password
- ☐ Locale
- ☐ Open Forms Docked
- ☐ Remember Window Sizes and Locations
- ☐ Clear User Profile ...

4 – Window Options

- ☐ Close All Windows

5 – Help Menu

- ☐ View Help (F1)
- ☐ My CIS Infinity
- ☐ CIS Support

6 – Main Menu Pane

- ☐ Main Menu

- ☐ Other Menu Buttons: Favorites, Recent Items and Startup
- ☐ Docking the Windows

ACCOUNTVIEW (1 hr 30 mins)

7 – Changes

- ☐ Aesthetics
- ☐ Searches
- ☐ Main Tabs Display
- ☐ Contact Subtabs Gone
- ☐ Advanced Grills & Button Groups

8 – User Task Inquiry

- ☐ User Task Inquiry
- ☐ Adding New System Tasks
- ☐ Reassigning Tasks

9 – New Services

- ☐ Adding new Account #

10 – Moves

- ☐ Simplified Scenario
- ☐ Wizard like flow

OTHER DAILY MODULES (1 hr 30 mins)

11 – Cash/Transaction Batch

- ☐ Cash Register
- ☐ Archives
- ☐ Transaction Batch
- ☐ Transfer Batch

12 – Billing

- ☐ Pre-Billing Exceptional Processing
- ☐ Shared Billing
- ☐ Archives

13 – Collections

- ☐ Collections Processing

14 – Service Orders

- ☐ Service Order Management

15 - Meter Inventories

- ☐ No Management Form
- ☐ Searching for Meters
- ☐ Adding Meters
- ☐ Scrapping Meters

QUESTIONS

V3 to V4 Upgrade

SYSTEM SETTINGS & TOOLS (1 hr)

1 – Basic Essentials

- ☐ SQL Logging
- ☐ Help Menu
- ☐ CIS Support
- ☐ Refresh Control Data
- ☐ Clear User Profile

2 – Add Users

- ☐ Adding New Users – Security Admin

3 – Menus & Forms

- ☐ Menu Definition
- ☐ Assigning Menus to Groups/Users

4 – System Control Forms

- ☐ Hierarchy of Control Forms
- ☐ Adding, Editing and Deleting

DAILY PROCESSES (1 hr)

5 – Letters

- ☐ Setting up Form Letters
- ☐ Letter Management

6 – Service Orders

- ☐ Setting up Service Order Forms

7 – Email Management Form

- ☐ eMail Management

8 – Move Scenario Control

- ☐ Move Scenario Control
- ☐ Linking Addresses to Moves

SPECIAL FEATURES (1 hr)

9 – Automatic and On Demand Actions

- ☐ Action Control
- ☐ Scheduling Actions
- ☐ Actions with Criteria
- ☐ Action Scenarios

10 – Audit

- ☐ Audit Log Viewer

11 – Process Log

- ☐ Process Log Review

12 – V4 Data Validation

- ☐ Running V4 Data Comparison Tool

QUESTIONS

TECHNICAL SPECIFICATIONS SOFTWARE MATRIX

Definitions: STD (Standard Out of the Box), Custom (Requires Customization), Third (Requires Third Party Integration)

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify processes required to accomplish "Mission Critical" tasks. If customization is required note the difficulty or time needed to complete customization)
	Mission Critical - Mandatory Requirements				
	General & Technical Requirements				
1.	The system's graphical user interface (GUI) must be Windows-based and provide a consistent appearance for common functions.	Y			<p>The features and functionality available in the C#.NET Winforms and DevExpress libraries are used throughout the GUI.</p> <p>All Customer/Account information is logically grouped into tabs that the user can quickly access from the main AccountView form. All the tabs have the same look and feel.</p>
2.	The system has the capability of simultaneous multi-user updates for real-time processing. Specify restrictions.	Y			CIS Infinity is highly scalable and flexible. There is no limit to the number of users on the system and the system is optimized to handle databases with millions of records. CIS can comfortably accommodate up to 150-200 users.
3.	The system allows the user to perform queries based on partial field entries.	Y			Each Search option within CIS Infinity allows for partial matches, "Sounds Like" capabilities and wildcard searches.
4.	The system provides the ability to perform reporting and query on all data maintained within the application.	Y			CIS Infinity uses a flexible query tool in order to allow users to search and report off of any data within the system.
5.	The system supports automated stamping of notes/comments with the User ID and date/time.	Y			CIS Infinity pre-ships with a standard list of audited fields, but the County can audit any field in the system easily through the user interface, as well as view the audited details graphically (such as the original value, user ID and date/time of the change).
6.	The system can store values for drop down lists and user-defined parameters in configurable lookup tables.	Y			Values for drop down lists and user-defined parameters is fully configurable by the County using lookup tables.

7.	The system has the ability to search, query and report on all data fields.	Y			CIS Infinity uses a flexible query tool in order to allow users to search and report off of any data within the system.
8.	The system can use flags to prohibit or modify the accrual of interest and penalty on a receivable.	Y			As part of a configurable setting, the County can flag an account to prohibit or modify the accrual of interest and penalty on a receivable.
9.	The system has the ability to generate unique account numbers.	Y			In CIS Infinity, each customer (individual or business) is assigned a unique Customer Number.
10.	The system has the ability to maintain all history associated with each instance of a customer.	Y			CIS Infinity retains all customer history including billing, transactions, moves, calls, customer correspondence, comments, service orders, usage, credit and payments, for an unlimited period of time.

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify processes required to accomplish "Mission Critical" tasks. If customization is required note the difficulty or time needed to complete customization)
11.	The system has the ability to support multiple user/user group roles with role-based security.	Y			All users are assigned a role, and role-based security controls access to all screens, tabs, processes, tables (down to the individual field level), reports, queries and layout customizations. Any item in CIS Infinity can be secured, including restricting options available from dropdown lists.
12.	The system provides separate and distinct environments for production, test, and training under one licensing agreement including scripts to automate testing validation.	Y			Expedient can provide production, test and training environments under one licensing agreement. Scripts are available for testing validation but this is not automated.
13.	The system has the ability to allow a user to modify existing reports, with appropriate security permissions.	Y			The reporting engine within CIS Infinity allows the County to modify standard reports. The County can change the formatting and data elements contained within the standard reports by simply copying the report and making the changes that would meet your reporting requirements.
14.	The system is browser agnostic.	Y			A future upgrade of CIS Infinity includes a web based GUI for all the core CIS user forms which is browser agnostic.
	Security Requirements				
15.	The system must authenticate users at login.	Y			Our application authenticates users at login by means of user name and strongly enforced passwords.
16.	The system must be able to receive and display the user name.	Y			The user name is displayed within CIS Infinity.
17.	User Name and Passwords utilizing Azure Active Directory Services. Single Sign-on required.	Y			The County can create their own Active Directories or Expedient can provide AD as a managed service. SSO can be supported if needed, discussion will be needed to finalize solution.
	Utility Billing Requirements				
18.	Uses wizards to expedite processes such as setting up new accounts, meter change outs and creating service orders.	Y			CIS Infinity has highly configurable workflows that will allow a user to walk through steps based on conditional information to ensure they provide the most efficient customer experience.

19.	Provides various levels of security. Access should allow each user group to be granted full access, read-only access, or limited access. Allow for administration of user access and password administration.	Y			<p>The security model can be set globally to either a restrictive or permissive mode.</p> <p>All securable items have different access types defined, such as Access, Update, Add, Delete and Manage for table level security.</p> <p>The security model can be maintained by a CIS administrator and does not require IT training to administer.</p>
20.	Interfaces to cash register, general ledger, meter reading, remittance processing software, permitting, parcel inventory, mapping and electronic bill payment and presentment (EBPP) applications.	Y			CIS Infinity facilitates fast, inexpensive integration with a multitude of industry tools, including cash register, general ledger, meter reading, remittance processing software, permitting, parcel inventory, mapping and electronic bill payment and presentment (EBPP) applications.
21.	Provide the ability to identify type of customer account (business, residential, etc.) from user defined table.	Y			The Account Type is configurable using a Control form.
22.	Provide the ability to identify customer accounts by system (area or other defined field) from user defined table.	Y			CIS Infinity supports the ability to identify accounts by system or by utilizing any of the configurable fields available.

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify processes required to accomplish "Mission Critical" tasks. If customization is required note the difficulty or time needed to complete customization)
23.	Provide the ability to any system user (based on security profile) to inquire and access all data for an account, including location, services, customer, services orders, meters, taps, accounts receivable, notes, complaints, payment arrangements, and credit history from a single inquiry.	Y			Users can access all key information on a single screen – no need to jump from screen to screen – to access all data for an account.
24.	Support an unlimited number of accounts.	Y			CIS Infinity is highly scalable and flexible. The system is optimized to handle databases with millions of records.
25.	Ability to define, add, change and delete an unlimited number of account types.	Y			The Account Type is fully configurable by the County using a Control form.
26.	Provides new account set up and account maintenance on-line real-time.	Y			New account set up and account maintenance is achieved on-line real-time.
27.	Ability for unlimited notes on accounts, customer, premises, service order, with the ability to assign alert flags to accounts with notes. Notes should be at a minimum of 240 characters, and identify the author of the note and the date/time created.	Y			Free form notes fields as well as configurable text fields are available on every form within the CIS Infinity system. A user can record an unlimited number of notes on every form and the notes fields can accommodate unlimited text. All notes will be recorded with the date and time stamp as well as the author of the note.
28.	Support unlimited transaction and consumption history and import up to 10 years of current history. History purging should be controlled by the admin.	Y			CIS Infinity retains all customer history including transaction and consumption history and can import 10 years of current history. All history will be stored in the system and is accessible until the utility deems it necessary to purge data.
29.	Provides ability to mark an account as an "internal" account, and type of internal account (school, town building, library) and define that account as either billable or not billable.	Y			Accounts can be classified according to the standards of the business. The classifications such as internal can be tracked and the status can be utilized to define whether an account is billable or not.
30.	Ability to track an unlimited number of user-defined events on an account (i.e. late notices, shut off, meter-tampers, backflow testing, etc.).	Y			CIS Infinity can track an unlimited number of user-defined events within various areas of system. Tabs that show collection items will detail all information from the start of the billing all the way through the collections process to a disconnection. These items can be set with expiration dates so

					they do not show on an active listing, but can always be viewed and reported on at any time.
31.	Ability to track information through the system by contact or property. Ability to see all accounts at a given property (current and prior) and be able to view all accounts associated with a customer.	Y			<p>CIS Infinity allows the County to identify and track customers independent of the service address, so that history is never lost for the customer or the service address.</p> <p>In CIS Infinity, each customer (individual or business) is assigned a unique Customer Number. This Customer Number is used to track the customer's full history using move in / out details, contacts, collections history, comments, credit rating and much more. No matter where that Customer moves to in the County's service area, their Customer Number will remain the same. Each Customer may also be defined as a member of a special group for Consolidated Billing purposes.</p> <p>The Account Number in CIS Infinity represents the service address (premise) where one or more utility services are provided. The Account Number will remain the same for the service address regardless of the customer occupying that service address. A Customer who has multiple properties will therefore be associated with multiple Accounts.</p>
32.	Ability to maintain owner information and alternative address on premise.	Y			<p>The information associated with a premise is configurable by the County.</p> <p>Multiple additional addresses can be added, edited, deleted in the Address tab of the AccountView form. The Address Type is a configurable list defined in the Control forms.</p>
33.	Ability to flag customers that have filed bankruptcy and the date of filing.	Y			Bankruptcies are processed on the main AccountView form. The type of bankruptcy, reference number, date and notes are added for reference to the account.

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify processes required to accomplish "Mission Critical" tasks. If customization is required note the difficulty or time needed to complete customization)
34.	Ability to define, add, change, and delete an unlimited number of rate code types and amounts, via table driven values. Ability to define utility fees that can be assessed, from both service and non-service driven criteria (e.g. backflow testing, etc.).	Y			CIS Infinity's rate engine has a unique design that uses extensive normalization of the rate structure to allow for virtually unlimited straightforward and complex rate configurations. With this rate engine the County has complete control over the rate design (e.g. no rate configuration used) and model (e.g. no hard-coded rate elements). The rate engine supports the ability for fees to be charged regardless of service or non-service based on user defined criteria.
35.	Ability to define an effective date for rate tables and prorate charges based on the effective date.	Y			<p>All rates are effective dated. A rate can be created from "scratch" or alternatively an existing rate can be copied with a new effective date. This allows rates to be quickly updated.</p> <p>Pro-ration rules in the CIS Infinity rate engine follow the same flexible nature of the rate design. This puts the rules of pro-ration into the hands of the County and allows proration by effective date, service, bill type (e.g. final vs. regular bill), event type (e.g. meter change vs. rate change), and even at the rate element level.</p>
36.	Ability to define service rates that are consumption based, fixed, percentages, subtract meters, budget based, tiered, or seasonally averaged.	Y			Rates within the CIS Infinity system are fully configurable at the utility level. Rates can be based on all of the above, and within the rate structure, rates can be based on a combination of any of the listed items. Rates can be configured with start and end dates, and will also allow for future dating.
37.	Ability to base charges for non-metered services such as sewer on water consumption with the ability to cap sewer charges based on average winter water use.	Y			Non-metered service charges can be billed based on logic such as the winter water average. The base charges are fully configurable as with any other rate structure within CIS Infinity.
38.	Ability to define distribution of fees to multiple A/R - general ledger accounts based on user-defined account type, fee category, service type, or reason code.	Y			CIS Infinity supports distribution of fees to multiple G/L accounts based on various criteria.

39.	Ability to define, add, change, and delete an unlimited number of services types.	Y			Each Account can have multiple Services (e.g. water, sewer, storm etc.). The number of services that can be defined is unlimited.
40.	Ability to enter stop and start dates for individual fees on an account.	Y			CIS Infinity is fully configurable so fees can be charged as part of an action or workflow. If fees are built into a rate, a rate can be set to have an expiration date that will no longer allow that fee to be charged again. Once this is charged the fee cannot be deleted.
41.	Ability to indicate accounts exempt from deposit and the reason code for the exemption.	Y			CIS Infinity supports the ability to create account exemptions from deposit rules along with tracking the exemption type with date and time stamp as well as user ID for the user who entered the exemption.
42.	Ability to import meter readings upon any frequency via integration with ITRON meter reading system and service.	Y			Utilizing your integration with ITRON for meter readings, CIS Infinity can import the reads based on any utility determined frequency.
43.	Ability to define, add, change, and delete an unlimited number of meter types.	Y			The County can add, remove or change out an unlimited number of meter types, as well as adjust billing parameters for a meter at an account. The ability to remove a meter, clean it or test it, and return it to its original account with any reading changes is also supported.
44.	Ability to maintain an unlimited number of meters.	Y			The Meter Inventory functionality in CIS Infinity can maintain an unlimited number of meters, and store all associated data including install related, test related, and warehouse/stock related information.
45.	Ability to identify a meter by type, size, serial number, manufacturer, location, and install date.	Y			The Meter Inventory functionality in CIS Infinity provides a detailed view of each meter including type, size, serial number, manufacturer, location, associated remotes, ERTs, service entrances, purchase consignments, installation history, test history and repair history. Simple account related and advanced search options are also supported, along with the ability to hyperlink back to the AccountView form from the Meter Inventory form.
46.	Service consumption automatically calculated upon entry of meter reading with ability to edit readings.	Y			When a meter read is brought into CIS Infinity, the read automatically triggers a calculation. The entry of that reading can also initiate any error validation workflows based on consumption rules preconfigured in CIS Infinity.

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47.	Allows concurrent meter reading data entry of one route while processing billing for another.	Y			CIS Infinity does not stop any processes based on the running of another simultaneous or subsequent process. Pulling in a read involves separate processes from billing, so both processes can be run at the same time. Validation checks and edits can also be completed without lockouts or degradation of the system.
48.	Maintains meter readings and dates independent of customer or account changes.	Y			Meter reading data is stored indefinitely within CIS Infinity and is tracked at the meter and premise level, regardless of customer or account data changes.
49.	Provides ability to enter a meter change without interruption of the billing cycle and final billing.	Y			CIS Infinity provides the functionality to make changes to meter information without cycle interruption. If a read has to be changed during a billing cycle (or final billing) it can be edited and adjusted.
50.	Ability to describe the location of the meter at a service location.	Y			CIS Infinity stores all of the location information for the meter at the service location. Information about the meter can be stored at the meter level so that regardless of meter location the most important data stays with the meter.
51.	Ability to view a history of all meters that have been installed at the service location.	Y			At the account level in CIS Infinity a user can see a list of all meters ever installed at a premise. A user can also view all reading history including install read and removed reading.
52.	Ability to define meter read types.	Y			CIS Infinity allows the utility to define any meter read types. These read types are fully configurable at the utility level without vendor intervention.
53.	Ability to change out meters at any time. Where meters have been changed out, ability to show separate individual meter readings and consumption and to show total consumption and billing amount on the same bill.	Y			Meter change outs can be done at any time within CIS Infinity. When meter changes occur all of the data associated with the old meter, including dates and reads, are stored within the meter history. Bill presentment can include all old meter data such as the ending read as well as the starting read of a new meter.
54.	Maintains reading instructions, prints instructions on read sheets, and provides information in meter reading interface.	Y			Meter reading interface information is fully configurable to include reading instructions and other important data.

55.	Ability to calculate a winter consumption average to be applied as a billing cap during defined period for user defined accounts.	Y			CIS Infinity has the ability to calculate winter consumption averages based on any condition required.
56.	Ability to allow the user to manually calculate and enter estimated meter readings without overriding an original or billed reading.	Y			Within CIS Infinity a read can be manual calculated and estimation rules will be configured around the County's business processes. When a read is entered and calculated the County will have the ability to either add the read or just use for estimation and not store. If a read is stored, it will not replace or override an original read or billed reading, as it can be stored as an information only read.
57.	Convert any usages stated in gallons to cubic feet (CF) and from CF to gallons as indicated by user.	Y			CIS Infinity has the ability to convert readings that are pulled in as gallons to cubic feet and vice versa.
58.	Ability to accommodate compound, deduct, and subtractive metering.	Y			CIS Infinity handles all types of metering, including compound, deduct, and subtractive.
59.	Supports a multi-cycle billing system (with subordinate sections in cycles).	Y			CIS Infinity can support an unlimited number of billing cycles as well as billing off cycle and manually processed bills. Cycles are fully configurable based on the County's business processes.
60.	Generates one utility bill covering all services and charges and itemizes charges separately.	Y			The implementation of CIS Infinity includes the creation of a custom bill print that can display any information that is included in the system.

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61.	Maintains a file of standardized comments for inclusion on utility bills, reminder notices or lien notices.	Y			All notes and comments are stored and saved within the CIS Infinity system.
62.	Provides user-defined free form message (with spell check) on bills. Bill includes billing date, account number, service period, current read, prior read, meter changeouts, consumption billed, itemized charges, balance forward, amount due, due date, numerical and graphical prior-same period usage, and average gallons used per day.	Y			<p>A bill print can display any information that is included in CIS Infinity, and spell check is built into the system to help correct any errors during free form message entry.</p> <p>Unlimited bill messages are supported in CIS Infinity. Each bill message is supported with start and stop dates, type of message, who receives the message (i.e., all Residential account types, etc.).</p> <p>CIS Infinity can also handle one off bill messages based on a customer profile or a generated Action (i.e., put a bill message on bills for customers who had high water consumption and have been cut off in the past 60 days). These types of conditions and follow up Actions can also generate custom bill messages.</p> <p>Bill messaging can also be applied on the fly (depending on security access).</p>
63.	Generates a return stub so that cash receipts can be read with an optical character reader, scanning the account and amount.	Y			<p>CIS Infinity bill print formatting can be configured to include a stub. Bill printing would be handled by a bill print vendor.</p> <p>Stub scanning is fully supported by the cash register functionality included with CIS Infinity.</p>
64.	Ability to view and reprint a past bill at any time.	Y			CIS Infinity has the ability to reprint a bill directly from the AccountView form, on the Bills tab. A "Print Copy" button accessible on the Bills tab will either regenerate the bill in the defined Crystal bill print format, can access a stored PDF of the bill that was generated during the bill print process, or can hyperlink to an external bill archive (for example, one maintained by a document management system or external bill print & mailing vendor).

65.	Ability to export bills to a file for 3rd party printing, in standard formats such as csv, excel, PDF, etc.	Y			The County outsourced their bill printing to a professional printing house. Therefore, Advanced will have provided the County with an electronic export file to identify the data required on the bill print. Then the County would have worked with its third party vendor to design the bill print and once it was finalized Advanced duplicated it in Crystal so that the County could do bill reprints or manual bill prints onsite.
66.	Ability to prorate bills for new and closed accounts.	Y			CIS Infinity includes a flexible proration rules form allowing the utility to determine what the proration rules are, what the time frames are, and any other details around the rules of prorated billing.
67.	Supports calculation of consumption using current and previous meter readings multiplied by user-defined multipliers (such as number of dwelling units or condos).	Y			CIS Infinity can be configured to handle any type of formula required by the County.
68.	Calculates final bills during any cycle based on the internal issuance of a service order or closing a customer account.	Y			Final billing can be run at any time. Final billing can also be set to run on a scheduled process so that they are picked up after hours. Further, billing processes can be completed in response to an event such as a turn off service order or the closing of a customer account.
69.	Supports billing adjustments such as read errors, automatically adjusts billing amounts and history.	Y			Billing adjustments can be completed at any time during the life cycle of an account. If an adjustment needs to be run that impacts previous billing, this process can be completed using a single step process by selecting the affected billing dates and rerunning a rebill.
70.	Allows printing of multiple (up to 4) third party (dual notification) bills during bill run.	Y			CIS Infinity allows printing of third party bills during a bill run. Third party information can be set to print or sent electronically based on a customer's communication preference.
71.	Ability to bill metered and flat rate services using account specific multiplier.	Y			All rates are fully configurable at the utility level within CIS Infinity.
72.	Ability to bill a surcharge to an account.	Y			CIS Infinity supports surcharges on a rate.
73.	Ability to post a lien on property by account and financial criteria, and ability to remove that lien when payment is made.	Y			CIS Infinity supports lien management including the ability to record, track, communicate and maintain information tied to the customer or the premise using defined criteria. Accounts will remain active and can be reported on and

					accessed at any time during the lien process and notifications can be configured around the status (lien set up, lien satisfied, etc.).
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74.	Ability to automatically reverse all transactions generated as a result of posting a check which is returned for insufficient funds, or correctly age an account which has been adjusted as a result of posting a check which is returned for insufficient funds.	Y			A transaction batch will be created in CIS Infinity which includes returned checks. Update of the transaction batch can optionally automatically generate actions within CIS Infinity. In the case of NSF checks, these typically include notifying the customer (e.g. email, letter, call, bill message), adding a NSF fee, placing a forced comment like "Cash Only" etc. The system will automatically reverse the initial payment transaction and create the associated GL entries.
75.	Allows positive or negative transaction adjustments with a complete audit trail.	Y			All transactions within the CIS Infinity system are traceable via an audit trail, including positive or negative transaction adjustments.
76.	Provides automatic allocation of payments to billed service with ability to adjust or override the default distribution.	Y			During discovery sessions allocation of payment amounts will be discussed and the system will be configured to support the automatic allocation while always leaving the ability for a user to adjust or override. As with any adjustment, the date and time stamp and user ID will be recorded.
77.	Accepts over-payment or credit adjustment with amount maintained as unapplied credit balance or be applied to the next service bill.	Y			For transaction type adjustments the user can request an adjustment by selecting the transaction on the transaction tab of the AccountView form. As an option, the adjustment can move through an approval process based on the amount and type of the adjustment. The adjustment will be reflected on the customer's next bill.
78.	Provides complete audit trail of payments processed for reconciliation prior to general ledger cash posting.	Y			Every single transaction within CIS Infinity has a complete audit trail. Tracking can be completed as part of a reconciliation process prior to cash posting to the G/Ls.
79.	Ability to generate a duplicate invoice or statement detailing charges and balance due (including extensive history, e.g. more than 7 prior bills).	Y			A user will have the ability to generate a duplicate invoice showing the original information that was generated on the invoice at time of creation. A user will have the ability to generate invoices from all invoices created within CIS Infinity.

80.	Ability to import payment records from bank website and remittance processing software.	Y			<p>CIS Infinity interfaces with a large variety of bank website and remittance vendors.</p> <p>The interface import payment files on a user-initiated or scheduled basis using a configurable text file format defined using the Advanced Interface Manager (AIM) module. These interfaces are designed to import payment files to create payment batches within CIS Infinity and validate the payment file contents.</p> <p>CIS Infinity supports generating ACH files using the standard NACHA format.</p> <p>All of Advanced's US clients have the ACH bank draft interface in use.</p>
81.	Ability to accept full, over, partial, and pre-payments.	Y			<p>CIS Infinity will not flag or stop any payment from being brought into the system on any of its modules (cash register, portal, import). If an account is closed, or a balance is incorrect, flags can be placed on the account to alert the person posting the payment.</p>
82.	Provision for data entry correction of any distribution errors.	Y			<p>CIS Infinity allows for the correction of errors via data entry at any time.</p>
83.	Provide for auto-pay option for customers to pay from customer's bank account or credit card, via user preference settings, or via web application accessible to customer.	Y			<p>CIS Infinity does not store any credit card data within the system, however a customer can go online to the portal and sign up for an auto-pay program. If they are choosing a payment type of credit card they will be forwarded to a payment vendor page. This requires payment vendor integration. If the customer is using a bank account they can enter the data via the web portal or it can be entered directly into CIS Infinity by a Customer Service Representative.</p>
84.	Ability to scan payment information directly into the system using a bar code or OCR scanner.	Y			<p>CIS Infinity can produce a bar code or OCR line in the desired format on bills, containing customer number, account number and billing information (due date, amount) so that payment stubs can be scanned and processed using the bar coded information.</p>
85.	Ability to support payment arrangements for customers to schedule payments for outstanding balances.	Y			<p>CIS Infinity automatically tracks Payment Arrangements (PAs) and their current status, initiates collections procedures (call, notice and</p>

					<p>print) and assigns follow-up tasks. A variety of PAs may be added from the Arrangements tab on the AccountView form.</p> <p>PAs can be single, multiple or installment, and may even be integrated with subsequent bills. Depending on the PA, affected customers may be required to pay the original PA plus the amount of the fresh bill to “satisfy” the PA. Collections processing is suspended until the due date of the PA.</p>
86.	Ability to automatically apply deposits to the correct revenue accounts.	Y			CIS Infinity can apply deposits to correct revenue accounts based on system configuration and utility business rules.

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87.	Ability to display account transaction history in full via web interface.	Y			The web portal Infinity.Link can display all transaction history based on business rules within CIS Infinity.
88.	Ability to age accounts in 30, 60, 90 120, and user-defined day increments.	Y			CIS Infinity has fully configurable aging buckets that are controlled by the County. Standard 30, 60, 90, and 120 day increments are available standard and out-of-the box.
89.	Ability to send reminder notices.	Y			Reminder notifications can be defined as part of the collections process (e.g. send reminder notice of overdue payment notice after "X" days past due) using the Collection Actions control form. Multiple reminders notices can be defined (e.g. 1st notice, 2nd notice etc.) Additionally, users can create ad hoc notifications to customers. Notices can be transmitted in multiple forms to the customer (e.g. email, letter, IVR outbound call, and bill message etc.). A user can select one customer or a group of customer using the Filter functionality.
90.	Ability to send service cut off notices by cycle and/or services.	Y			CIS Infinity produces cut off notices for accounts in arrears based on the parameters defined in the control tables. The parameters are completely configurable. The notice itself is also completely configurable.
91.	Ability to send lien notices by cycle and/or service.	Y			Lien notices can be configured to generate by cycle and/or service type based on system configuration
92.	Ability to track accounts with liens recorded.	Y			Lien accounts can be tracked by various fields including things like account type or account status. Those fields can be used for reporting or query building.
93.	Ability to produce reports of accounts with liens recorded.	Y			CIS Infinity supports reporting with the lien accounts by way of querying the fields in which the County has determined they want that data stored.

94.	System has the ability to generate standard form letters populated with account data based on predefined fields by user defined selection criteria.	Y			<p>Creation of correspondence is accomplished using the letters and email functionality in CIS Infinity. Letters and emails may be created on demand or automatically as part of an Action or process (e.g. collection process). Letters are Word mail merge documents created using Bookmarks (data objects) from CIS Infinity.</p> <p>When creating a document (i.e., either adhoc or from a template selection), CIS Infinity will resolve all data required for the letter (i.e., will display the customer name, AR balance, meter number or whatever information is required on the mail merge letter).</p>
Cashiering Requirements					
95.	System integrates with standard Point-of-Sale computer (cash drawer (opened by system), pole display (displaying total receivable), receipt printer (printing receipt formatted for that size paper), check reader/printer (reading OCR and other bank info from scan line of any submitted check), credit/debit card reader (mag strip reader and pin pad).	Y			CIS Infinity has interfaced with many standard POS systems for centralized cashiering purposes utilizing a standard web services API or using plug and play technology within the utility network.
96.	System can provide daily cashier reports that reflect the beginning balance in the cash drawer, all transaction details, including reversals and cancellations, and end-of-day cash balances.	Y			CIS Infinity utilizes our crystal report writer to generate journals and reports to use for balancing processes. The Journals contain the aforementioned detail but can also include other fields if needed.
97.	System can accommodate payments tendered as cash.	Y			CIS Infinity includes a comprehensive Cash Register with the ability to handle any type of payment including cash.
98.	System can accommodate payments tendered as checks.	Y			CIS Infinity includes a comprehensive Cash Register with the ability to handle any type of payment including checks.
99.	System provides the ability to process a credit card transaction through the web-based provider. Describe how credit card info is received, stored, and uploaded within a PCI compliant environment.	Y			The CIS Infinity Payment Engine is fully PCI compliant, however we do not store any sensitive data, and utilize a token passed by a secured payment vendor integration.

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100.	System can calculate and record the change due to a taxpayer with a cash transaction. System can store this information as a transactional journal record. System can also be configured to prevent an overpayment on a cash transaction.	Y			The CIS Infinity cash register supports the ability to track and display the change due to a payer as well as the total amount owed and total amount paid and can be configured to not allow overpayments.
101.	System can provide support for online cashier balancing on an intermittent basis throughout the day without closing for the day.	Y			There are no issues with a balancing process being done on an intermittent basis based on the County's requirements. Mid day balancing does not require closing the batch.
102.	System can generate audit trails for all items processed at the cashier counter.	Y			All transactions within the CIS Infinity system are traceable via an audit trail.
103.	System can generate audit information on the back of checks that includes: Cashier ID Amount Paid Process Date Postmark Date Parcel ID or Bill # Tax Year				CIS Infinity can endorse a check and supports the ability to generate audit amount information on the back of checks that includes but is not limited to the aforementioned data.
104.	System can display and report cumulative totals at the end of the day to the cashier that breaks down and totals all payment types, by tender type, as well as any over/under amount.	Y			CIS Infinity has the ability to display the cumulative totals at the end of the day for journaling and reporting purposes. This journal will report the data providing the tender types as well as dollar amounts.
105.	System records payments to batches that can be grouped together for daily activity. Batches are assigned to a single cashier and a single processing day for accountability. All activity for each batch is balanced to a cash till.	Y			CIS Infinity records the payments to batches and each batch is controlled by the user who created it, as well as the ability to have a supervisor with access. All activity will be associated with the cash till the cashier is associated with.
106.	Cashiers can use multiple batches per day to segment work.	Y			Cashiers can use an unlimited amount of batches as needed per day to segment work.
107.	Cashiers can balance their drawer remotely on another workstation (backroom balancing).	Y			CIS supports the ability for a cashier to balance out a cash drawer from another workstation.
108.	Cashiers can record payments for a new processing day before the old processing day is balanced (multiple days open at same time).	Y			CIS supports a cashier to record payments for a new day before the current day is balanced, however there will be an admin controlled function to lock months once the system is balanced.

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109.	Payment balancing that allows authorized users to combine deposits from different batches into a single consolidated deposit once each batch is balanced.	Y			The assumption here is the utility deposit goes to the utility account from check/cash batches. Deposits can be generated based on date and/or batch ranges, among other conditions to create a consolidated deposit. This process has standard role based security. PAP processing (bank draw using credit or debit) using a bank file is currently only done by batch, but the process that collects the transactions for the batch is flexible and can collect whatever range is needed.
110.	System can provide a means to reconcile processed payments with the actual payments received by the cashier.	Y			CIS Infinity allows a reconciliation process to be done with the actual payments received by the cashier, showing the date and time stamp of the payment being received on the journal.
111.	System can support an unlimited number of cashier workstations.	Y			The workstations for cashiers can be unlimited based on the demand of the county.
112.	System can distribute payment transactions to receivables for misc. charges (according to any payment hierarchy as may be defined by admin).	Y			The Payment allocation rules are configurable which provide the ability to distribute payments according the County's payment hierarchy.
113.	Ability to process receipts regardless of network and system status so that system operates in an on-line and off-line mode. Describe your system's ability to handle offline scenarios.	Y			CIS Infinity, Version 4 is a Windows application and is always online other than during upgrades.
Reports & Queries Requirements					
114.	Allow users to define and save queries for future use as defined by the users.	Y			The Advanced Query builder can be used to create custom queries. All queries can be saved. The Advanced Query Builder is accessible on all searches, filters, report criteria, actions or pickup processes. It includes support for not clauses (left joins), run-time value prompts and date formulas, among other features.
115.	Allow the user to select and/or mark subsets of data for extraction, reporting or analysis (i.e., define a query/extraction of data separate from the report characteristics/format).	Y			Users can take advantage of the Advanced Query Builder to search on any field/combination of fields in CIS Infinity.

116.	Allow users to define date parameters (from and to) for any combination of data to be extracted from the system by use of querying.	Y			Users can define their desired query criteria including date parameters (from and to).
117.	Allow the user to direct report output to the screen, any printer, or electronic format.	Y			<p>CIS Infinity utilizes Crystal Reports as its standard report writer.</p> <p>Crystal Reports has the ability to export data into a number of formats, including: PDF, TXT, CSV, DOCX, RTF and XLSX.</p>
118.	Allow the ability for user-defined parameters (e.g., date ranges, geographical ranges, NAICS codes, employee count ranges, etc. for the purposes of selection criteria) to be utilized in queries and ad hoc reports.	Y			Every field is accessible via the database, and can be reported on based on security settings.
119.	System can integrate with GIS solutions and the A/R & G/L to report data according to distinct boundaries (e.g. region, zip code "zone", etc.). Please describe capability.	Y			<p>CIS Infinity offers the ability to display the GIS map provided by ESRI within CIS Infinity, allowing the user to see a spatial representation of utility accounts in the AccountView screen, providing access to GIS layers and CIS account services.</p> <p>Using ESRI APIs, CIS Infinity can be configured to validate service addresses against GIS addresses at point of entry or in mass.</p>

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify processes required to accomplish "Mission Critical" tasks. If customization is required note the difficulty or time needed to complete customization)
120.	System can create a top water/sewer users report, by consumption and by dollars billed, under user defined criteria by region or area.	Y			CIS Infinity includes a library of standard reports, Optional criteria can be applied to a report from the Criteria tab. Any standard report can be copied and modified by the user (e.g. adding additional data elements). The County can also create its own custom report (.RPT) and attach its own Crystal Reports format to the CIS Infinity menu using the Reports Administration Control form so that users can access County specific reports directly from within CIS Infinity. Creation of a custom report requires that the County have a full license of Crystal Reports.
121.	Print using a scanner compatible font (OCR-A scan line), bill amount and account number on the bill stub	Y			CIS Infinity can produce a bar code or OCR line in the desired format on bills, containing customer number, account number and billing information (number, due date, amount) so that payment stubs can be scanned and processed using the bar coded information. What determinants are included on the bill stub and in what format is configurable.
122.	System allows the printing of notices and receipts at user workstations or at designated printers.	Y			Any printer available to the workstation is available to CIS Infinity.
123.	The ability to create a report based on actual billed usage (minimum bills).	Y			Standard, ad hoc and custom reports are all available within CIS Infinity.
	Integration Requirements				
124.	Allow a user to reprint any previous bill for a customer.	Y			CIS Infinity has the ability to reprint a bill directly from the main AccountView form, on the Bills tab. A "Print Copy" button accessible on the Bills tab will either regenerate the bill in the defined Crystal bill print format, can access a stored PDF of the bill that was generated during the bill print process, or can hyperlink to an external bill archive (for example, one maintained by a document management system or external bill print & mailing vendor).

125.	System has the ability to create meter reading files based on user defined cycles and/or routes for import into to Itron FCS Application Server v4.0.1 (v4.0.1.7); or later version.	Y			<p>CIS Infinity supports an interface with ITRON meter reading software, configurable using the Advanced Interface Manager.</p> <p>The interface will export account and meter related information from CIS Infinity to ITRON.</p>
126.	System has the ability to process meter reading export file; any “standard” file, i.e. xml, csv, etc.	Y			Using the Advanced Interface Manager framework, CIS Infinity can be configured to process a meter reading export file containing meter data reads, meter notes, comments and trouble codes for billing purposes.
127.	System has the ability to create daily Fixed Network Baseline file to upload to Itron FTP site.	Y			Using the Advanced Interface Manager framework, CIS Infinity can be configured to export customer and account information to ITRON; details of the export file are required for better understanding of the scope.
128.	System has the ability to create daily Fixed Network Device Maintenance File to upload to Itron FTP site.	Y			Using the Advanced Interface Manager framework, CIS Infinity can be configured to import customer and account information provided by ITRON; details of the import file are required for better understanding of the scope.
129.	The ability to generate form letters with the appropriate data populated based on the account and/or system user-defined context.	Y			<p>Creation of correspondence is accomplished using the letters and email functionality in CIS Infinity.</p> <p>Letters and emails may be created on demand or automatically as part of an Action or process (e.g. collection process). Letters are Word mail merge documents created using Bookmarks (data objects) from CIS Infinity.</p> <p>When creating a document (i.e., either adhoc or from a template selection), CIS Infinity will resolve all data required for the letter (i.e., will display the customer name, AR balance, meter number or whatever information is required on the mail merge letter).</p>
130.	System has the ability to create print files for bills and notices based on user defined cycles and/or routes for export to bill print vendor via SFTP or similar process.	Y			<p>An electronic bill print (EBP) export file containing all billing/notice information required by the third party vendor will be created (scheduled or on demand).</p> <p>Advanced has a standard configurable electronic bill presentment format for exporting detailed</p>

					billing information to third party bill print vendors.
131.	System has the ability to import various data files from lockbox, online banking and/or credit card processor, etc to post customer payments.	Y			<p>CIS Infinity interfaces with a large variety of bank website and remittance vendors.</p> <p>The interface import payment files on a user-initiated or scheduled basis using a configurable text file format defined using the Advanced Interface Manager (AIM) module. These interfaces are designed to import payment files to create payment batches within CIS Infinity and validate the payment file contents.</p> <p>CIS Infinity supports generating ACH files using the standard NACHA format.</p> <p>All of Advanced's US clients have the ACH bank draft interface in use.</p>
132.	System integrates with EBPP and metering systems utilizing single sign on for customer in an online portal.	Y			Through Infinity.Link Enterprise, our customer engagement portal which we have proposed as optional.

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify processes required to accomplish "Mission Critical" tasks. If customization is required note the difficulty or time needed to complete customization)
	Electronic Bill Presentment and Payment (EBPP) Requirements				
133.	Vendor currently provides an integration that provides a real-time data exchange and Single Sign-on process between the CIS and EBPP platforms.	Y			Single Sign-on is supported between CIS Infinity and Infinity.Link Enterprise.
134.	The service electronically presents bills/invoices (for viewing online) and processes online payments. Customers can view an invoice and then proceed, within the same user interface, to make an online payment.	Y			Ebill presentment and online payment integration is available with Infinity.Link Enterprise within the same user interface.
135.	The service presents and processes online payments for the following invoice types – Water and Sewer.	Y			Infinity.Link supports water and sewer service for online electronic bill presentment and payment.
136.	Allow 24 months of billing and payment history to be shown to Customers and County personnel.	Y			<p>With Infinity.Link Enterprise Customers and County personnel can access and review e-bills as well as payment history for 24 months.</p> <p>The electronic bill inquiry feature presents customers with a list of their current and historic bills.</p> <p>Infinity.Link Enterprise has an E-Bill integration engine that can be configured to access various document repositories, network folders or local directories that contain PDF files. The number of bills and the table layout can be tailored to meet your needs.</p>
137.	System allows customers to elect paperless billing through online self-service.	Y			Customers can select paperless billing through Infinity.Link Enterprise.
138.	The system does not require customers to register to make a payment.	Y			Infinity.Link Enterprise provides customers the ability to pay a bill without having to register for a user login id. This is referred to as Quick Pay. Customers need only provide an account number and last name to make a payment on the account.
139.	Provide merchant services for processing that allows the County to continue to use their selected banks for deposit accounts without having to sweep funds			Y	Function of payment processor.
140.	POS (Point of Sale) will be provided and integrated with the service.	Y			Included through Infinity.Link Enterprise.

141.	The system will provide interfaces that support the following payment processing functions: authorizations, charges, settlement, credits, refunds and voids, scheduled payments, AutoPay payments, FlexPayments (customer-initiated payment plans), chargeback and reject notifications.	Y			Depends on capabilities of payment processor.
142.	Software as a Service (SaaS) architecture – All payer financial or payment information and the invoice presentment and payment processing application is housed offsite and not under the care or control of the County.			Y	Function of payment processor.

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify processes required to accomplish "Mission Critical" tasks. If customization is required note the difficulty or time needed to complete customization)
143.	Service and Billing Software are synchronized so when a customer goes on-line into the County branded Customer Portal to make a payment, the current balance due will be displayed.	Y			The current balance due will always be displayed within Infinity.Link Enterprise.
144.	Show payment history for payments made through all channels (checks, cash at cashier's window, lock box, etc.), not just on-line payments.	Y			All payment history is viewable within Infinity.Link Enterprise regardless of payment method.
145.	Provide secure, private and PCI Level 1 compliant storage of customer payment information completely outside of the County's Information Systems.	Y			Infinity.Link Enterprise and CIS Infinity's payment engine are both PCI Compliant.
146.	System must be compliant with all applicable PCI and NACHA regulations and laws.	Y			Infinity.Link Enterprise and CIS Infinity's payment engine adhere to all applicable PCI and NACHA regulations and laws.
147.	Allow the County to either absorb or pass e-payment processing fees onto the customer at time of payment, for the various bills presented and paid.	Y			Processing fees are entirely up to the County.
148.	Ability, at the County's option, to register and electronically receive customer payments made through customers' online banking program channels. Service must automatically intercept payments made by consumers using online bill pay sites (ex. home banking and online banking services), show best matches of those payments to consumer's open balances, provide system where County staff can upload file of online payments into the billing system with system settling those payments by Automated Clearing House and depositing funds directly into County operating account with full reporting. Reporting should include list of all online payments made to County on the business day following the day of payments, with funds deposited two business days after date of payments. This service must include providing email notifications to residents who have registered their email addresses in the service.	Y			This process is completely configurable within Infinity.Link Enterprise.

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149.	Ability, at the County's option, to provide a fully integrated Interactive Voice Response (IVR) system wherein residents can make payments by telephone.	Y			CIS Infinity provides customers with a real-time interface with all industry standard IVR solutions using the CIS REST API. The interface allows customers to hear their utility account balance, check payment history, update contact information (phone number) and make payments to their account, which are then reflected real-time in CIS Infinity. Interface required.
150.	The electronic invoice must look like the printed form or otherwise as specified by the County.	Y			Advanced works with the County to ensure the electronic invoice meets your specifications.
151.	Multiple invoice notifications that can be scheduled based on a date or number of days from date of issuance. Notifications should be sent only to customers with an outstanding bill balance above \$10.00.	Y			This is configurable within Infinity.Link Enterprise.
152.	Provide a simple self-service means for customers to sign up to "go paperless" and discontinue getting a paper bill, without ANY involvement from the County staff.	Y			Customers can select paperless billing through Infinity.Link Enterprise without the need for County intervention.
153.	Service must offer an integrated paperless process so that "paperless" customers can be filtered out of the print file.	Y			Customers that opt for a paperless bill will only receive an electronic copy of their bill.
154.	Paperless customers must be automatically re-enrolled to receive paper bills if customer's email notification "bounces" as undeliverable.	N			
155.	Electronic invoice notifications and web site both must provide a link that customer can click that transports customer to a secure (128 bit SSL encryption, at a minimum) site, which is branded as the County, for a seamless transition. Once there, the customer has the option to: view/print/store the invoice, make a one-time payment (without registering) or register as a customer to enter the County branded Customer Portal and use advanced features	Y			Infinity.Link Enterprise provides a secure site where customers can conduct their utility business. For data in transit, SHA256 and TLS1.2 transport mechanisms are utilities for certificate and HTTPS traffic. For Data at rest, we support one-way encrypted passwords and sensitive customer facing links are encrypted with timeout validation. Keys are typically stored in industry standard trust

					stores that can be accessed by the web application container.
156.	When customer begins the online payment process, customer data pulled from the invoice being paid should be pre-populated on the customer's behalf as "billing name and address" information. System must allow the customer to overwrite this information if a different person is paying the invoice.	Y			This functionality is available with the payment processor.

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify processes required to accomplish "Mission Critical" tasks. If customization is required note the difficulty or time needed to complete customization)
157.	Customer portal must be easy to use and have intuitive navigation.	Y			Infinity.Link Enterprise was designed to be easy to use and intuitive to navigate.
158.	Customers must be able to view bills and payment history, sign up for AutoPay, make scheduled payments, elect to go paperless, make customer requests, view meter data and make payments – all from the same Customer user interface.	Y			Infinity.Link Enterprise allows your customers to access the information they need quickly and efficiently as well as conduct utility business including the items listed all from the same interface.
159.	County artwork will be used to create a customized portal interface that mimics their website.	Y			With Infinity.Link Enterprise the County can easily customize and manage corporate branding, messaging and content to reflect that of your website.
160.	Customers must be able to see that Customer portal is secure as denoted by https:// designation with lock icon.	Y			Infinity.Link Enterprise offers a secure site as indicated by the https:// designation with lock icon.
161.	Customers must be able to locate their bill easily using a variety of authentication data (as determined by County).	Y			Various authentication data can be used by customers to locate their bill in an easy manner with Infinity.Link Enterprise.
162.	The system supports a one-time online payment option without registrations as well as a capability to register to access history, schedule a payment, or set up automatic payments.	Y			These registration options are available with Infinity.Link Enterprise.
163.	If a customer has signed up for AutoPay, he/she must receive email notice of pending payments three business days prior to the payment being made.	Y			This is configurable within Infinity.Link Enterprise.
164.	If a customer has signed up for Scheduled Payments, he/she must receive email notice of pending payments three business days prior to the payment being made with the option to make changes.	Y			This is configurable within CIS Infinity.
165.	Once a customer has registered, he/she should be able to login into his/her account using only their email address and password. The service should show multiple billing accounts to customers who register for different bill types with the same email and password.	Y			Infinity.Link Enterprise supports the ability for one user to manage many accounts as well as provide guest access into the portal. Access to the site is granted through the combination of an email address and password.
166.	Allow customers to schedule payments, enroll in automatic payments and elect paperless billing using online self-service all within the same County branded Customer Portal.	Y			Infinity.Link Enterprise provides all these capabilities within one County branded Customer Portal.

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify processes required to accomplish "Mission Critical" tasks. If customization is required note the difficulty or time needed to complete customization)
167.	Partial payments: provide ability to allow customers to specify the amount they wish to pay (only for bill types designated by the County).	Y			This is configurable within Infinity.Link Enterprise.
168.	Payment confirmation must be displayed online at conclusion of payment transaction and customers must also receive a "Thank you for your payment" email confirmation within 2 minutes of payment authorization.	Y			The steps for this process are entirely up to the County and can be set up within Infinity.Link Enterprise.
169.	System must include customer account management features and provide access to 18 months of rolling invoice and payment history from the point of first invoice file upload on the system.	Y			Infinity.Link Enterprise includes user registration and profile management. 18 months of rolling invoice and payment history is available.
170.	System must allow customers to make mobile payments using mobile responsive design that is optimized for smart phones and tablets with no app required.	Y			Infinity.Link Enterprise is fully responsive and utilizes adaptive web design. Payments can be made efficiently from mobile devices.
171.	Mobile interface should be easy to use, demonstrated by more than 30% of service activity being made through mobile devices.	Y			That level of service activity is generally what we see with the mobile interface.
172.	System should allow customers to see full payment history for 24 months, regardless of payment method (i.e. at the counter, online, mailed in, etc.).	Y			With Infinity.Link Enterprise customers can access payment history for 24 months for all payment methods.
173.	Vendor MUST NOT require residents to enter any non-bill information from a paper bill to authenticate or to go paperless. All information needed to authenticate must be able to be found directly in the invoice data file and/or bill without searching for extraneous coded numerical sequences that have been added by the print company somewhere on the bill.	Y			Authentication process and requirements are completely up to the County and can be set up in Infinity.Link Enterprise.
174.	Provide an easy to use administrative tool that helps County staff manage customer accounts and monitor payment activity.	Y			Infinity.Link Enterprise includes intuitive internal utility-facing tools for account management and monitoring of payment activity.
175.	The County Customer Service Representative ("CSR") must have the ability to login as the customer and see what the customer sees throughout the complete online payment and customer portal access process.	Y			Infinity.Link Enterprise supports the ability for a CSR to view the data in impersonation mode from the portal. The CSRs will not be able to see the sensitive data but will be able to support the customer as they can view the same information as the customer.

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify processes required to accomplish "Mission Critical" tasks. If customization is required note the difficulty or time needed to complete customization)
176.	The CSR has the ability to make a payment on behalf of the customer (typically phone payments).	Y			A CSR can help out a customer and make a payment on their behalf.
177.	County will receive email notifications if there are any disabled/incorrect email addresses used in the delivery of bills or emails.	Y			The County will receive undeliverable email notifications in these instances.
178.	County must be able to block all online payments from specified customers (i.e. if a payer repeatedly bounces checks).	Y			The County can control which customers can make online payments.
179.	County must be able to block credit card payments but allow eCheck payments for specified customers.	Y			With Infinity.Link Enterprise the County can control what type of payments customers can make.
180.	System provides the ability for County to create a maintenance window for a specific duration at a specified time.	Y			Available with Infinity.Link Enterprise.
181.	System allows County to convey a customer after move out, to close down past customer and open up the account for a new customer keeping the account number intact if desired by County.	Y			The move out process can be set up according to the requirements of the County.
182.	Ability to administer the online customer request ticketing system through the account management tool.	Y			Available with Infinity.Link Enterprise.
183.	Provide means in which County personnel can authenticate into a secure County Portal to create reports and/or excel spreadsheets showing daily, monthly, or date range activity for payments, scheduled payments, upcoming auto-payments, registrations, paperless sign ups, auto-pay enrollments and ACH/EFT rejects.	Y			The internal utility-facing tools included with Infinity.Link Enterprise offer Online Payment Transaction reporting and User Activity Reporting.
184.	Provide a large selection of pre-configured reports in the online management tool (which are regularly synchronized with County's billing software) to access trend data and resolve inquiries. County must be able to request reports for daily, monthly, or date range activity for payments, scheduled payments, registrations, paperless and ACH/EFT rejects.	Y			The internal utility-facing tools included with Infinity.Link Enterprise offer Online Payment Transaction reporting and User Activity Reporting.
185.	Ability to provide daily and monthly Summary and Detail Analysis Reporting of customer payments activity.	Y			The internal utility-facing tools included with Infinity.Link Enterprise offer Online Payment Transaction reporting and User Activity Reporting.

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify processes required to accomplish "Mission Critical" tasks. If customization is required note the difficulty or time needed to complete customization)
186.	Ability to provide reconciliation reporting for daily deposits and batches, segmented by bill type.	Y			Available in CIS Infinity.
187.	Fees incurred by County are separate from revenue collected by County on all financial reports.	Y			Reporting of fees is completely up to the County.
188.	Provider will transition the County customers currently signed up for automatic recurring payments to their system, supplying the proper layout and relevant information that is needed for the conversion.	Y			Advanced can support the County in this effort if Infinity.Link Enterprise is selected.
189.	County will have the ability to pre-audit the online bills before they are sent to verify accuracy and format.	Y			Advanced will work with the County to ensure the online bills meet your requirements.
190.	System will provide client support during working hours and access to a fully functioning helpdesk ticketing system 24x7.	Y			Advanced provides support 24/7 to its customers.
191.	All updates, upgrades and enhancements for the electronic invoice presentment and payment service must be performed by the provider, in the "cloud" rather than at client location. No additional costs should be incurred for updates or upgrades.	N			Upgrades and enhancements are provided with a current maintenance agreement for Infinity.Link. Upgrades and enhancements are provided for Infinity.Link Enterprise with the annual recurring subscription.
192.	Training must be provided to instruct County staff how to use the system. Ongoing training should be available.	Y			If Advanced is fortunate enough to be selected as the County's vendor of choice this would not be necessary as the County is already using Infinity.Link. Ongoing training is available.
	Service Order Requirements				
193.	Ability to create a service order record to include the following fields:	Y			A service order record in CIS Infinity can include the fields listed from item 194. to 202.
194.	Service order number.	Y			Included.
195.	Description of work	Y			Included.
196.	Status code.	Y			Included.
197.	Order type.	Y			Included.
198.	Date/time requested.	Y			Included.
199.	Promised date of service.	Y			Included.
200.	Date of completion.	Y			Included.
201.	Priority code.	Y			Included.

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202.	Customer site information (mean dog, meter location, fence, business name, etc.).	Y			Included.
203.	Completed by code.	Y			Service orders can be configured with specific drop down completion code choices. Each completion code generates a unique set of actions.
204.	Interface to the customer record for address and other information.	Y			When you navigate to the Service Order tab you can see the customer information in the Information Band at the top of the screen.
205.	User-defined comment field.	Y			A user-defined comment field with respect to service orders is available in CIS Infinity.
206.	Ability for customers to complete service requests over the internet.	Y			This is available through Infinity.Link Enterprise.
207.	Pre-fill user-defined descriptions in service orders based on either request type or through user-selected drop-down menus.	Y			This is completely configurable within CIS Infinity.
208.	Approve service orders via workflow.	Y			The service order workflow can be fully automated.
209.	Listing of service orders scheduled for that day.	Y			Through queries and reporting.
210.	Summary of service orders scheduled for future dates, by date and type, for manpower scheduling.	Y			Through queries and reporting. Through interface with Itron Mobile System.
211.	Listing of service orders for dates in the past that have not been completed in the system.	Y			Through queries and reporting.
212.	Tickler feature with aging based upon requested date for follow up on approved but open service orders.	Y			Through queries and reporting.
213.	Tickler feature with aging based upon promised date for follow up on approved but open service orders.	Y			Through queries and reporting.
214.	Process service orders in real time.	Y			CIS Infinity is designed to be a real time system. All updates, edits, additions or otherwise are updated to the database immediately.
215.	System queries and sorts service orders by:				
216.	Customer name.	Y			Through queries and reporting.
217.	Complaint type.	Y			Through queries and reporting.
218.	Priority code.	Y			Through queries and reporting.
219.	Date/time requested.	Y			Through queries and reporting.
220.	Date/time promised.	Y			Through queries and reporting.

221.	Record and maintain service order history (e.g., service site, customer contact information, etc.).	Y			Information about service orders related to an Account is available for viewing and editing in the Service Orders tab.
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No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify processes required to accomplish "Mission Critical" tasks. If customization is required note the difficulty or time needed to complete customization)
222.	Update or otherwise modify a schedule date for a service order.	Y			A user can make this change through the Service Order tab. Through interface with Itron Mobile System.
223.	Supports Android, iOS, and other tablet-based technologies for in-the-field web-based service technician usage through cell carriers.	Y			With an integration to the Itron Mobile System. Optional: 50 – 60 hours.
224.	Ability to define, add, change, and delete an unlimited number of service order types.	Y			Service order types are fully configurable by the County.
225.	Service order module provides automated updates to the utility system upon completion of service order.	Y			Once a service order is completed CIS Infinity is automatically updated.
226.	A history of all service orders related to a service address should remain with the service address record. Service orders should provide drill down functionality for details of actual service order.	Y			All service order history will be stored within a service order table. It can also be displayed on the account (service address) for historical review. All service orders provide drill down functionality so that details of the service order can be reviewed.
227.	Ability to define a workflow for each service order type with automatic email notification to responsible parties.	Y			Workflow for each service order type is completely configurable by the County through completion codes and automated responses called actions.
228.	Ability to print or email service orders based on user-defined selection criteria.	Y			This is completely configurable by the County.
229.	Ability to dispatch and receive completed service orders via email or web interface.	Y			Through interface with Itron Mobile System.
230.	Ability to schedule preventive maintenance and inspection work orders based upon a user defined time interval.	Y			Through automated responses called actions. Through interface with CMMS. Optional: 80 – 120 hours.
231.	Ability to schedule change out or calibrate meters based on user defined time interval and size of meters.	Y			Through automated responses called actions. Through interface with CMMS.
232.	Ability to send maintenance notices to the homeowner using a user defined time frame.	Y			Through automated responses called actions. Through interface with CMMS.
233.	Ability to send follow up notices to the homeowner if the device is not tested within a user defined period of time.	Y			Through automated responses called actions. Through interface with CMMS.
234.	Ability to assign and schedule work/service orders based upon assigned crew and equipment availability.	Y			Through interface with Itron Mobile System.
235.	Includes standard financial, operational, service work order reports and audit trails. Sample reports accompany RFP.	Y			CIS Infinity includes numerous financial, operational, service work order reports and audit trails out of the box.

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236.	Includes end user reporting tool to create reports based on any field combination or partial field within the utility billing system.	Y			CIS Infinity uses a flexible query tool in order to allow users to search and report off of any data within the system.
237.	Ability to export reports to Microsoft Excel, Word, and PDF.	Y			CIS Infinity utilizes Crystal Reports as its standard report writer. Crystal Reports has the ability to export data into a number of formats, including: PDF, TXT, CSV, DOCX, RTF and XLSX.
238.	Ability to generate a list of accounts, customers, or meters based on user defined selection criteria.	Y			All fields are fully searchable and reportable including user defined fields. Advanced provides a full data dictionary that is updated with every build and version update. Every field is accessible via the database, and can be reported on based on security settings.
239.	Ability to generate analysis reports with user-defined parameters with flexible selection criteria and grouping options.			Y	Power BI, allows a user to create analysis reporting with flexible grouping options. Flexible selection criteria is available within CIS Infinity or any other system integrated with Power BI. (Optional – not included in pricing.)
240.	Ability to identify and report usage on inactive, idle, and cut-off meters.	Y			CIS Infinity includes an inactive meter report.
241.	Ability to access service order history by location, customer, meter, account, service order number, date requested, date required, completion date and/or other user-defined search criteria.	Y			Available on the Service Order tab. Through queries and reporting.
242.	Access past service orders for a particular account or address.	Y			Available on the Service Order tab.
243.	Inquire in real time on a list of service orders by fields in the service order record.	Y			Through queries and reporting.
244.	Print a service order report in summary (by date sort) and detail that can be selected by Department/User assigned, priority code, service type.	Y			Through queries and reporting.
	Wholesale Billing & Reporting Requirements				
245.	Ability to identify wholesale services as a separate division within the County.	Y			The standard multi-company functionality in CIS Infinity will allow the County to identify wholesale services as a separate division without the burden

					of managing multiple systems.
246.	Ability to enter and/or import wholesale customer and usage data provided by outside communities.	Y			Data can be entered for this separate division.
247.	Ability to generate reports, queries, data exports (by dates, customer, structure type, billing type).	Y			Every field is accessible via the database, and can be reported on based on security settings.
248.	Ability to identify change in # of customers from one billing cycle to the next.	Y			Through reporting.

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify processes required to accomplish "Mission Critical" tasks. If customization is required note the difficulty or time needed to complete customization)
249.	Ability to report by any number of fields as configured by County to include:				
250.	Service Area (Region), Northwest, Northeast Central, Southeast, Central, Northeast.	Y			Included.
251.	Treatment Provider, Fox Lake, North Shore, Lakes Region, Lake County.	Y			Included.
252.	Structure Type (unlimited types, for example residential, commercial, food stores, auto, waste hauler, medical, municipal, school).	Y			Included.
253.	Customer Village Name.	Y			Included.
254.	# of users-RE/RCE (within each customer/village).	Y			Included.
255.	GL Codes, unlimited.	Y			Included.
256.	GL Posting Period, Month/Year.	Y			Included.
257.	Consumption Unit RCE, gallons (1000), accounts.	Y			Included.
258.	Consumption Type regular, irrigation, summer sewer, excess flow.	Y			Included.
259.	Dates, meter read date, service dates, billing date.	Y			Included.
260.	Cycle Type Monthly, bimonthly, quarterly.	Y			Included.
261.	Rate.	Y			Included.
262.	Charge.	Y			Included.
263.	Billing type Metered/Flat.	Y			Included.
264.	Ability to convert usage in gallons to residential equivalents (RE) using multiple conversion factors and convert RE's to gallons.	Y			These conversions are supported.
265.	Ability to post payments for wholesale services and report by GL account.	Y			<p>CIS Infinity records all financial transactions within its General Ledger sub-ledger. Updated transactions are sent to the General Ledger system via an interface to ensure the records in both systems are always in balance.</p> <p>All transaction batches (e.g. billing, payments, adjustments, etc.) have standard journals which provide summary and detail batch information (e.g. transaction summary, general ledger summary).</p>

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
	System Requirements				
	General & Technical Requirements				
1.	The system allows the user to return from the current screen or menu to a previous screen or menu.	Y			
2.	The system allows authorized users to perform online "drill down" from summary information to supporting detail information where appropriate.	Y			
3.	The system utilizes colors and other visual and non-visual aids to facilitate the use of system functions (e.g., data entry/section errors are presented in alternate colors for easy detection).	Y			
4.	The system supports "cut and paste" of text from/to the Windows clipboard.	Y			
5.	The system allows the user to access other input screens and modules without backing out of menus or menu paths.	Y			
6.	The system allows the user to open multiple occurrences of the same screen/window for the same Account, different account, Name or Identifiers. The system gives the ability to work in multiple screens/windows.	Y			
7.	The system has the ability to define default field values for data entry screens.	Y			
8.	The system has the ability to configure fields including formats for data input screens with validation without the need to modify application source code (e.g. field labels, entry masks, etc.).	Y			
9.	The system has the ability to define mandatory data entry fields.	Y			
10.	The system supports queries of substrings within notes/comments.	Y			
11.	The system has the ability to support UI level field validation.	Y			

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
12.	The system provides administrative screens for editing values in lookup tables.	Y			
13.	The system allows administrative users to add customized help functions.	Y			Utilities have the ability to customize the context sensitive Online Help using DokuWiki adding/editing content to meet their business needs.
14.	The system has the ability to highlight fields that contain identified errors for the end user.	Y			
15.	The system has the ability to highlight fields that are being edited by the end user.	Y			
16.	The system supports the ability to trigger administrator-driven actions when saving or creating a new record without customization.	Y			
17.	The system has the ability to support repositionable and dockable windows.	Y			
18.	The system can furnish users with the capability to update flags.	Y			
19.	The system can provide flags on a account level.	Y			
20.	The system can provide flags on a receivable level.	Y			
21.	The system can provide multiple flagging capabilities to flag or unflag multiple accounts or receivables at one time.	Y			
22.	The system can provide a file upload flagging capability in order flag or unflag multiple accounts or receivables at one time.	Y			
23.	The system can display all flags associated with a account or receivable upon a successful user-defined search.	Y			
24.	For every flag change, the system can record the change, the date of the change, the time of the change, and the user who made the change.	Y			
25.	The system can provide an unlimited flagging/unflagging history for a account or a receivable.	N			
26.	The system provides the ability to perform reporting and query on all data maintained within the system.	Y			

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
27.	The system provides the ability to specify and apply conditional workflow based on time and event triggers.	Y			
28.	The system has the ability to generate unique customer id.	Y			
29.	The system has the ability to impose table, row and field level security.	Y			
30.	The system provides a thin-client architecture.	Y			A future upgrade of CIS Infinity includes a web based GUI for all the core CIS user forms which is browser agnostic.
31.	The system has the ability to provide a library of standard reports (i.e., "canned" reports).	Y			
32.	The system has the ability to support foreign postal codes outside of the United States.	Y			
33.	The system has the ability to provide a centralized data dictionary, that fully describes table structure and appropriate levels of metadata.	Y			
34.	The system has the ability to spell check on any field with the ability to turn this feature on and off.	Y			
35.	The system has the ability to allow an administrator to configure the dictionary within the system that drives the spell check functionality.	N			
36.	The system supports the latest version of operating systems and browsers.	Y			
	Security Requirements				
37.	The system must support multiple configurable user roles as applicable to vendor's modules, for example (Cashiers, Clerks, Auditors, etc.)	Y			
38.	The system must provide management of data editing rights by department and user role for system modules, menu options and screens.	Y			
39.	The system must provide access/viewing control by department and user role for system modules and screens.	Y			

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
40.	The system must provide management of data editing rights by department and user role at the field level.	Y			
41.	The system must support field masking for secured data entry.	Y			
42.	The system must allow changes to prior year data by authorized users only based on business rules, or with administrator override.	Y			
43.	System can display an "unauthorized user" message if restricted access is attempted	Y			
44.	The system must have the capability of recording a system-wide end users audit trail or transaction log.	Y			
45.	The system must have the capability of recording a system-wide administrative user audit trail or transaction log.	Y			
46.	The system must provide an audit trail on when all and/or selected reports are run.	Y			
47.	The system must provide audit trail on secured fields access.	Y			
48.	Passwords are encrypted and system has the ability to enforce password strength and resets.	Y			
49.	System does not limit the number of concurrent sessions for one user.	Y			
50.	The system must have the ability to limit log-in attempts. Access prohibited to a user after a pre-determined, user defined number of invalid log in attempts.	Y			
51.	Users can be automatically logged off after xx minutes/hours of inactivity, which interval can be admin defined.	Y			
52.	The system must have the ability to restrict configuration capabilities to certain users (i.e.: department heads or Administrators) such as new field creation, new database tables, modifications to workflows, new Property Owners etc.	Y			
53.	Security functions have the capability to limit users by rights to view-only fields and screens, and to limit a user to specific menu options or transactions.	Y			

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
54.	User security profile can define which user can update or override another user's work.	Y			
55.	The system must have the ability to date and time-stamp all notes and comment fields.	Y			
56.	The system must have the ability to define users at various levels including Administrators and Inquiry Only Users.	Y			
57.	The system must have the ability to mask fields containing sensitive data such as Social Security Number.	Y			
58.	The system must have the ability to deactivate former employees while preserving history.	Y			
59.	The system must have the ability to "hibernate" and restore the immediately previous session.	Y			
60.	The system must have the ability for a single user to be assigned to multiple user groups/roles at the same time.	Y			
61.	The system must have application software security as opposed to utilizing strictly operating system and database security.	Y			
62.	The system security function must be maintained and defined by the application Security Administrator.	Y			
63.	The system must track date, time-stamp and user ID of each record when updated.	Y			
	Utility Billing Requirements				
64.	Includes user defined fields with parameters defined by the user.	Y			Defined by authorized user
65.	Provide administration including the ability to change or update field values within the system.	Y			
66.	Provide information on any related Utility Management module(s) of your system, which have not been specified, that you feel would be beneficial to our Water Department.	Y			Backflow Module; Miscellaneous Asset Inventory
67.	Ability to maintain current CIS customer account numbers.	Y			
68.	Provides summary and detail level inquiry of customer records.	Y			

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
69.	Model accounts (templates) allow you to create new accounts by copying the model and changing the details.	Y			
70.	Provides user-defined fields to be maintained for each customer record.	Y			
71.	Ability to provide an audit trail for changes to an account, identifying date/time of change, user, and nature of change.	Y			
72.	Accommodates new customers at an existing service change of address through an automated transfer function.	Y			
73.	Provides a CASS certification process to insure and maintain accurate postal information.	Y			
74.	Ability to track information through system by customer. Ability to view all accounts that customer has had and current status of accounts.	Y			
75.	Ability to link non-related accounts for the purpose of generating a recap statement of the detailed bills to a master account.	Y			
76.	Ability to assess various types of penalties for high use during mandatory water conservation based upon various criteria such as water budget and percent reduction.	Y			
77.	Ability to record unlimited notes for a meter.	Y			
78.	Ability to estimate meter reads based on user-defined history preference.	Y			
79.	Ability to identify reads that were estimated versus actual reads.	Y			
80.	Ability for system to automatically identify roll-over readings based on meter setup.	Y			
81.	Flexible high/low feature that allows the user to set range of parameters that produces consumption edit register for screening variables such as high/low consumption, no current read, zero consumption, etc.	Y			

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
82.	Ability to change meter reading sequence without changing customer account number.	Y			
83.	Ability to graphically display consumption history for an account.	Y			
84.	Ability to display average consumption by month for an account.	Y			
85.	Ability to view consumption history in numeric and graphical format via web application.	Y			Infinity.Link Enterprise
86.	Allows user to flag individual accounts for which zero consumption is not considered to be an exception.	Y			
87.	Ability to display and maintain record of past customer seasonal caps on their account.	Y			
88.	Prints meter route pages in customer number or route sequence number order.	Y			
89.	Ability to test for high/low consumption using user defined variances.	Y			
90.	Ability to estimate consumption based upon a weighted average of user selected prior billing periods.	Y			
91.	Ability to process positive or negative consumption adjustments with audit trail.	Y			
92.	Ability to retain information regarding backflow devices. This information should include, but not be limited to, serial number, manufacturer, model number, device size and type, installed address and location, permit number and date, testing date and results, tester, etc.	Y			
93.	Ability to handle readings when the meter rolls past zero. (i.e. last month's reading was 9995 and this month reads 0005).	Y			
94.	Provides a complete or exception only billing pre-list for review prior to bill printing.	Y			

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
95.	Allows printing of multiple cycles in one billing run.	Y			
96.	Ability to produce statements for customers with multiple utility accounts.	Y			
97.	Ability to sort bills by zip plus four to take advantage of postage discounts.	Y			
98.	Ability to suspend printing of a paper bill and instead email the bill to the customer, as well as allow the emailing of flagged bills in addition to mailed printed copies.	Y			
99.	Ability to re-sequence an account or a reading route with minimal data entry requirements.	Y			
100.	Ability to track accounts that have become inactive to Utility Management via access to vacant lot/house information by tax identification number and parcel id. (i.e. query integration with Assessing application).		Y		Requires Development - modification will require additional assessment
101.	System automatically generates the appropriate journal entries for "internal" accounts.	Y			
102.	Ability to distribute partial payments based on user-defined preference (due date, service type, or percentage).	Y			
103.	Ability to display transaction history including bills, receipts adjustments, credits and refunds for an account.	Y			
104.	Ability to display some details of transaction and drill-down to full transactional data.	Y			
105.	Ability to automate the credit/refund process by batch.	Y			
106.	Ability to track the number of consecutive times that a meter reading is estimated.	Y			
107.	Ability to write refund checks for deposits according to user defined rules, and initiate refund transactions upon request to a customer with a credit balance and interface with the Accounts Payable System.	Y			

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
108.	Ability to automatically add late penalties or interest to delinquent accounts according to a flexible rate structure determined by the user.	Y			
109.	Ability to produce final bills as well as final statement/notices, and delinquent bills for customers that have already received a final bill but continue to maintain an unpaid balance.	Y			
110.	Automated special payment arrangements allowing customer to pay amount due over time.	Y			
111.	System has the ability to generate ad hoc letters populated with account data based on predefined fields.	Y			
112.	System has the ability to automatically generate application form for all new customers.	Y			
113.	System has the ability to generate surveys by user defined selection criteria.	Y			
Cashiering Requirements					
114.	System can subtotal multiple transactions associated with a single payment; the system can display to the cashier and the customer (via pole display) amount due prior to posting of payments.	Y			
115.	System offers a POS application for cashiering and image capture at the cashier counter.	Y			
116.	Receipts can be printed at the cashier station.	Y			
117.	Printing a receipt on a shared or dedicated document printer (8.5" x 11").	Y			
118.	Endorsing a check or other form of tender on a validation or slip printer.	Y			
119.	Printing a duplicate endorsement on a validation or slip printer.	Y			
120.	System provides business activity reports detailing cashier work volume by a user defined period.	Y			
121.	System provides the capability to print a receipt as the time of payment posting at a cashier station.	Y			

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
122.	System provides the ability to print a duplicate receipt upon demand from any workstation).	Y			
123.	System allows the option to email a receipt from the cashier counter.	Y			
124.	System allows the name of the payers) to be printed on the receipt at the time of payment. Payer information can be updated as necessary on the receivable.	Y			
125.	System can provide cash reconciliation report showing cash activity vs. non-cash activity for each taxing entity that ties to total payment activity.	Y			
126.	System allows the suspension of a transaction at a cashier station, and then resume and complete it at a later time.	Y			
127.	System can accommodate payments tendered with credit vouchers.	Y			
128.	If payment being voided or adjusted was paid by credit/debit card, the system can select the original transaction in an audit window and void the payment and post the credit/debit reversal to the current batch.	Y			
129.	System allows the cashier to make 1 payment transaction for multiple receivables with multiple tender types.	Y			
130.	System allows a payment to be reversed at cashier station. Reversals on a date other than processing date will be prevented.	Y			
131.	System requires an action to be taken as a result of a cancelled payment to indicate where the money must go (i.e. refund, pay to another bill, scholarship contribution, etc.). Please specify the actions that are required when a payment is cancelled.	Y			
132.	Cashiering workstation can store all payments taken during offline processing and hold them until these payments can be rolled up to the collections system.	Y			

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
133.	Provide specifications for supported POS workstations.	Y			
134.	Provide specifications for supported peripheral devices (journal/validation printers, slip printers, input scanning devices, imaging devices, supported cash drawers, pole displays and pinpad units, etc.)	Y			<p>Any of the Epson printers work well (like the TM-88 or TM-U325 or TM-U375). Also, we have worked with an Ithaca 9000 model.</p> <p>Our only requirement is that the printer must have a Windows driver available. And if they want it to open the cash drawer when a receipt is printed, we need to make sure there is a "Command" font that will allow us to "print" a command which triggers the drawer to open.</p> <p>CIS Infinity also interfaces with bar code scanners so that payment information can be scanned directly into the system.</p>
135.	Solution will include 6 types of standard reports: Batch, Deposit, Payment, Allocation, Tender, and Audit/Analysis.	Y			
	Reports & Queries Requirements				
136.	Provide standard reports as a part of the baseline product.	Y			
137.	Provide a real-time query capability for viewing all customer history in the system.	Y			
138.	Support an integrated or third-party query tool.	Y			
139.	Support an integrated or third-party reporting tool.	Y			
140.	Provide the ability to generate reports using the following report generation tools: Crystal Reports, SQL Server Reporting Services, other commercial products.	Y			
141.	Provide a data dictionary that defines available data field descriptions and data formats for use in querying and reporting.	Y			
142.	All reports should provide a common header, page numbers and current date and time.	Y			
143.	System should allow creation of unlimited number of new reports and make them available to users by department.	Y			
144.	Allow a user to view query results and ad hoc reports online as well as in hard copy form.	Y			
145.	Enable a user to define queries utilizing: Menu-driven definitions and parameters, Drag & drop querying feature.	Y			

146.	Via the querying module, provide the ability to access: Multiple vendor tables simultaneously, Multiple non-vendor tables simultaneously, A combination of vendor and non-vendor tables.	Y			
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No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
147.	Provide the ability to export report data in any of the following formats: Excel, Word, RTF (Rich Text Format), PDF	Y			
148.	Provide the ability to provide field subtotals and grand totals on reports.	Y			
149.	Report writer provides the option to store queries and functions for repetitive use.	Y			
150.	Solution can provide reports for misc. charges showing the detail by year on all parcels with activity.	Y			
151.	System can generate a report of all payments applied to the database that were < or > the balance due.	Y			
152.	For payment amounts < or > the balance due, system can compare the difference to the amounts of recent changes and report separately.	Y			
153.	Solution can provide cash reconciliation report showing cash activity vs. non-cash activity for each taxing entity that ties to total payment activity.	Y			
154.	System can create and export files by current or delinquent status (one year or multiple years)	Y			
155.	System can create and export files with any combination of current or delinquent taxes and any combination of taxing entities.	Y			
156.	Provide the ability to print the following on the customer bill: Payment dates, past due amounts, adjustments, interest charges, penalty charges, current charges (detailed) including: rate description, base charge, rate tiers/steps and charges, fire protection sprinklers, miscellaneous charges.	Y			Configurable may require additional effort
157.	Allow a user to optionally suppress the printing of all zero value bills	Y			
158.	Print Post Office Standard Bar Coding on the bills	Y			
159.	Provide the ability to bill daily for those accounts that have successfully passed edits	Y			

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
160.	Allow the ability to sort and print bills in bill grouping codes (bill grouping codes are used to group accounts for special handling purposes): In the USA by nine digit zip codes, Delivery point codes for bar coding, Foreign postal codes, User defined target codes, By user defined messages, By delinquencies	Y			
161.	Print duplicate bills for a third party address on the account	Y			
162.	The ability to generate sample bill run so users can view bills prior to in-house print or submittal to print vendor.	Y			
163.	Print a message on the first page only of a multiple page bill	Y			
164.	The ability to view and run reports. (as appropriate to bidder's proposal, see also Tax tab, 'Searches, Queries and Reports' section).	Y			
165.	The ability for the jurisdiction to develop reports and configure them for use in the system without Vendor assistance.	Y			
166.	The ability for management to view critical reports and data in a dashboard interface.			Y	Power BI, allows a user to create analysis reporting with flexible grouping options. Flexible selection criteria is available within CIS Infinity or any other system integrated with Power BI. (Optional – not included in pricing.)
167.	Ability to print notices for multiple bill types.	Y			
168.	Ability to produce a notice from any screen upon demand with minimal keystrokes.	Y			Within notices or collections tab to reprint
169.	Ability to produce a notice for all receivables on a parcel, or one receivable on a parcel.	Y			
170.	Ability to create a custom bill design in house using standard reporting software.	Y			
171.	The ability to create a report based on actual metered usage.	Y			
172.	Ability to create a report to convert usage in gallons to residential equivalents (RE) using multiple conversion factors and convert RE's to gallons.	Y			
	Integration Requirements				
173.	System has the ability to track backflow prevention and testing and/or integrate with legacy system.	Y			As an option can convert current backflow system to CIS Ininfy Backflow Module and input results through the portal Infinity.BWP. 120 hours.

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
174.	System has the ability to integrate with an online customer survey system and record answers on customer accounts and in a report.	Y			Optional Integration - 70 hours
175.	System has the ability to create files for upload into General Ledger financial system.	Y			Optional Integration - 40 hours GL; 40 hours AP
176.	System has the ability to import new address data from Permitting system to create new accounts.	Y			Optional Integration – 80 hours
177.	System has the ability to schedule service orders using MS Outlook calendar with real time updates	N			Not available, and not planning
	Electronic Bill Presentment and Payment (EBPP) Requirements				
178.	Service must have the ability to present all types of bills electronically, including multi-page bills.	Y			
179.	Provide the option for credit & debit cards (Visa, MasterCard, American Express and Discover) and electronic check (ACH) payments.	Y			This is dependent on your payment processor
180.	Allow the COUNTY to designate the authentication method(s) used for customer to locate and/or pay electronic bill.	Y			
181.	Allow customers to pay online without registering by making one-time payments where payment information is not stored for future use.	Y			
182.	Render bill electronically at payer's request through either branded COUNTY online payment portal or via an email notification, depending on which method the payer has selected.	Y			
183.	Comply with Federal E-Signature Act for paperless billing and AutoPay by providing a system in which a customer must confirm enrollment in paperless billing and/or AutoPay by responding to an email sent after customer selects paperless billing and/or AutoPay through online self service.	N			Enroll button acts as confirmation
184.	Offer a program specifically for utilities to qualify for card association utility rates, if desired by the County.	Y			

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
185.	Service must include features that promote the adoption of paperless billing, including prompting the customer to enroll in paperless billing during the online payment process.	Y			
186.	Provide email notification capability for three invoice notifications, invoice payment receipt, upcoming auto payment, failed auto payment, failed scheduled payments, registration confirmation, auto payment registration, paperless registration, late fee invoice notice, ACH rejects, credit card expiration, scheduled payment reminder, auto-payment reminder, flex-pay schedule and customer registration.	Y			In conjunction with Payment Processor
187.	Offer email notifications that are customizable and allow targeted messages with links to inserts, banners or news announcements. The service must accommodate different email notification messages for each bill type.	Y			
188.	Once a customer registers or makes a payment and inputs the email address connected to their account, they should begin to receive email notifications for future invoices. The County can upload existing email addresses, if any are currently retained, directly into the system, and email notifications can be sent without any action on the part of the customer.	Y			
189.	Customer must be able to view and download an exact replica of the paper bill.	Y			
190.	Service should include a courtesy email address field, so that account holder can authorize copies of email notifications to go to a secondary email address.	Y			
191.	The customer must have the ability to view their bills online whether they pay their bills online or via the mail.	Y			
192.	A print screen button should appear on the payment confirmation screen, giving customers a self-serve option to print out a payment receipt/confirmation.	Y			

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
193.	Service should notify customers to update their credit card information 60 days prior to their credit card expiration date and again at 30 days prior to expiration if the customer has not updated the information.	Y			
194.	Provide a customer request system housed in the County branded Customer Portal enabling the customer to send an email which will open a ticket in the County management tool.	Y			
195.	Service must allow customers to receive text (SMS) messaging reminders and pay by text message.	Y			
196.	Service should send email confirmation receipts to payers who pay online through their personal banks if their email address is available.	N			Not a function of CIS
197.	County and the customer will be notified via email of any transactions rejected due to insufficient funds or other processing issues. The email notification should include the reason code for the reject.	N/A			Not a function of CIS
198.	Ability to perform voids (within the same day) and credits for credit card and ACH payments made on-line.	Y			
199.	Service must provide daily batch close reports, daily management reports, ACH rejects, file processing notifications, ACH Reject Notifications, paperless customer email bounce reports, and customer request system notifications to multiple staff members via email.	Y			
200.	Service must provide email template management for event driven notifications such as bill issued, payment confirmation and payment rejected. Emails must be customizable for each bill type County wishes to electronically present.	Y			
201.	Service must provide flexible payment options, as listed in the next 13 boxes (check 'Yes' here if all apply).	Y			
202.	Allow County to require payment in full on certain bill types.	Y			

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
203.	Ability to take payments over the phone.	Y			
204.	Accepting payments beyond the due date when applicable with balances automatically updated daily so nothing needs to be done by the County.	Y			
205.	Allowing multiple bills to be paid with a single transaction when applicable.	Y			
206.	Allowing multiple payment types from customer for the same bill.	Y			
207.	Allowing flexible payments to be scheduled by customers through self-service whereby a customer can select the number of payments he/she wants to make and the system automatically calculates the amount and provides a payment schedule to the customer by email.	N/A			Function of your payment processor
208.	Allowing partial payments and/or over payments if selected by COUNTY for specific bill types.	Y			
209.	Ability to allow for multiple payment types for one customer for the same bill.	Y			
210.	Ability to balance forward and apply late fees and penalties at County's discretion.	Y			
211.	The service must include permissions management and accommodate multiple administrative levels which can be assigned to allow different functionality based on staff position requirements.	Y			
212.	Ability to provide reports for scheduled future payments.	Y			
213.	Ability to provide daily and monthly reports indicating the number of dishonored transactions, including rejected ACH transactions.	Y			
	Service Order Requirements				
214.	Following the completion of a service order automatically e-mail the customer an evaluation survey when an e-mail address is included in the customer record.	Y			

No.	Inquiry	STD (Y/N)	Custom (Y/N)	Third (Y/N)	Comments (Use this column to identify if customization or third-party support is required. Note the difficulty or time needed to complete.)
215.	Ability to automatically update customer, location, meter, and account information upon completion of service order actions.	Y			
216.	Provide a user-defined table of service order activity codes and corresponding work (e.g. establish a new location with a new customer, final a customer from a location, final a meter from a location, etc.). All such codes and descriptions must be presented on any work order.	Y			
217.	Ability to override or update a fee attached to a service order.	Y			
218.	Ability to avoid duplication of service orders for the same service type and parcel id (i.e. location/account).	Y			

Exhibit 1: Payment Milestones

Milestone Description	Milestone Amount (\$)
Delivery of a mutually agreed upon initial project plan that shows a complete set of project steps that will achieve the Go Live date.	\$21,450
Project Management – Month 1	\$8,580
Project Management – Month 2	\$8,580
Project Management – Month 3	\$8,580
Project Management – Month 4	\$8,580
Project Management – Month 5	\$8,580
Project Management – Month 6	\$8,580
Project Management – Month 7	\$8,580
Project Management – Month 8	\$8,580
Installation of CIS Infinity V4 (hosted)	\$30,030
Delivery of Core Team Training	\$15,730
Delivery of Functional Discovery Workshop	\$15,730
Delivery of Functional Data Conversion	\$44,330
Delivery of ITC Data Conversion	\$44,330
Delivery of UAT Data Conversion	\$30,030
Cut Over To CIS Infinity V4 Go Live	\$15,730
Total Service Milestones	\$286,000
Total Services	\$286,000

- All work undertaken throughout the course of the CIS Infinity Version 4 Upgrade (training, meetings, data refreshes etc.), will take place during the regular work week (Monday to Friday) and regular business hours. A SOW Amendment will be issued to request resources for work to be completed outside of the regular work week, over a holiday or after business hours. An hourly rate of \$380 applies.

- The exception to this is the cut-over to Live will happen over a weekend at the regular hourly rate, which is already calculated into the pricing shown in the table, above.