

City of Fargo  
Auditors Office

Request for Proposals  
Utility Billing Software

June 2019

## **Introduction**

The City of Fargo Auditors Office is requesting sealed proposals from interested and qualified vendors of utility billing software. The proposal should accommodate all existing City of Fargo utility billing processes and procedures as well as expand customer service functions, staff productivity and capitalize current technology.

## **City of Fargo Overview**

The City of Fargo is situated in the Red River Valley on the border of North Dakota and Minnesota. Its location at the crossroads of two interstate highways along with a hub for rail traffic and a regional airport have led to steady growth over the decades. Fargo's current population is estimated at 130,000 with a metro population exceeding 200,000. The City of Fargo is a regional provider of water and wastewater treatment services. As such, the utility billing system needs to be dynamic enough to adjust to these growth patterns.

The utility billing system currently bills for Water, Wastewater (Sewer), Solid Waste (Garbage), Storm Sewer, Street Lights, Mosquito Control and Forestry. In addition, there are separate categories including Residential & Commercial Single Sort Recycle and Commercial Cardboard Recycle included with the Garbage Utility and Sump Pump, Sanitary Sewer Commercial Industrial Surcharge (BOD/TSS) and SE Cass Rural Sewer accounts, included with the Sewer Utility. The City of Fargo provides bulk water and sewer services for the City of West Fargo, Cass County Rural Water Users District and Tharaldson Ethanol Plant.

The City of Fargo Auditors Office is responsible for the all utility billing functions including reading water meters, billing preparation and payment processing.

The utility billing function has three customer service representatives and three meter readers. The department reads all 33,000 accounts on a monthly basis. The City uses three billing cycles, billing north, central and south Fargo on separate cycles. Meters are read using a combination of radio-transmitted reads and touch pad reads, each cycle is broken into approximately 50 routes with between 50 and 550 reads in each route. All new accounts are set up with radio-transmitted units, there remain 20,000 touch pad reads each month.

Meter reads are reviewed for high consumption, low consumption and stopped meter as well as other analytics. Billing is calculated part with usage calculations, part as a fixed number and part coming from imported data. A third party vendor through a file transmission process prints utility bills. Utility bills can be received electronically or in print format.

Utility account payments are made in a variety of methods. Customers can choose to use IVR, online web, direct debt (ACH), bill payment providers as well as check and in person payments (cash, check or credit cards).

The current utility billing system is an IBM i based homegrown product. The City has utilized an in house programmer to maintain the system. The City's financial general ledger package is also an IBM i based package utilizing Central Square software.

### **Delivery Requirements**

Responses to this RFP shall be submitted in a sealed package addressed as noted below and shall clearly identify the vendor making the submission, the package shall be marked "Utility Billing RFP". Each vendor must provide five paper copies of the submission and at least one electronic submission. Vendors are liable for all costs incurred in preparing and submitting a proposal.

Please review the RFP fully, complete all responses and submit the package no later than Wednesday, August 14 at 2 p.m. Vendors are solely responsible for ensuring their responses are received timely. Late responses will not be accepted. Fax and email are not considered valid responses.

Mail or hand deliver to:

Auditors Office  
Fargo City Hall  
225 4<sup>th</sup> Street North  
Fargo, ND 58102

The City of Fargo reserves the right to cancel this RFP at any time for any reason without liability to any proponent or to waive any technicalities or irregularities deemed in the best interest of the City of Fargo. The City of Fargo reserves the right to reject any and all RFPs.

### **Contact Information**

Questions regarding this request for proposal should be directed to:

Steven Sprague, City Auditor  
225 4<sup>th</sup> St N  
Fargo, ND 58102  
[SSprague@FargoND.Gov](mailto:SSprague@FargoND.Gov)  
701-241-1301

### **Scope of Services**

The City of Fargo desires a utility billing software that will meet the current core functions and allow the City to grow into future needs. The software will integrate all aspects of the utility services, including maintaining customer accounts, billing and collection, interface to meter reading systems, service order processing, payment interfaces and customer web access. In

addition, the City of Fargo wishes to implement improvements to the system where customer interactions are improved and staff time is used in the most efficient manner.

It is expected that the vendor be responsible for leading the installation of new software and data conversion of existing software and provide sufficient training for staff to be proficient using the software. The City of Fargo will enter into a professional services agreement with the vendor selected best meeting the needs of the City of Fargo providing the best value including installation, data conversion, implementation, training and support.

### **Required Functionality**

The requirements identified in Appendix A: System Functional Requirements are organized into nine categories. The responses should address the following:

1. **General Functionality**  
This includes general software and support requirements.
2. **Customer account and location management**  
This includes the creation, maintenance and use of customer accounts
3. **Rates and Fees Management**  
This includes the maintenance and application of all utility rates, penalties, miscellaneous charges and fees
4. **Meter Reading and Inventory Management**  
This includes meter inventory, reading and consumption requirements
5. **Billing Management**  
This includes the preparation, calculation, printing and distribution of bills
6. **Financial Management**  
This includes payments, trial balance, adjustments, refunds, deposit and accounting
7. **Delinquency Management**  
This includes penalties and interest, payment plans, terminations and collections
8. **Service Order Management**  
This includes creating, completing and managing service orders
9. **Reporting**  
This includes standard and user created reports to query data

### **Hardware and Software Requirements**

Proposal shall indicate where and how the software will reside or the program will be hosted, if hosted please list system redundancy. Proposal shall identify if system is based on named users or concurrent users.

If existing computer infrastructure is inadequate proposer shall give alternative to upgrading hardware to meet the needs of the vendor. The submission needs to clearly define all

computer and software requirements for their utility billing system. The City of Fargo Information Technology system requirements are listed in Appendix B.

### **Proposal Submission Format Requirements**

- 1. Executive Summary** – Provide a concise overview describing the proposed approach to completing the work
- 2. Description of Organization and Qualifications** – Provide a description of the major business functions, history and structure of the organization. Include a profile of the office location, staff and services that will be assigned to the City of Fargo. Specify the number of years the vendor has been in the public sector software business. Provide a brief statement of the company’s background demonstrating longevity and financial stability. Describe internal performance metrics used to quantify key customer support responsiveness such as issues resolved on the first call or average time to reach issue resolution. Provide the following background information on the proposed utility billing software: original development, date of first release and date of most recent release.
- 3. Experience on Similar Projects** – Provide summaries or brief descriptions of a minimum of three projects performed which are most related to the requirements and size of this project. Limit descriptions to those most relevant to this project and most representative of the vendors capabilities. References must be for goods and services provided within the last five years. Include the name of the client and the contact person, date of installation, software installed, any installation issues and custom features or extensive report capabilities.
- 4. Detailed Description of Proposed Solution** – Describe how the vendor will meet all of the functionality requirements listed in Appendix A: System Functional Requirements. Indicate for each of the requirements whether the software is fully compliant, requires a modification or is not available. Provide a timeline with proposed dates beginning with contract execution and ending with full implementation.
- 5. Future Technology** – Vendor will describe what “state of the art” technologies or best of breed features their software possesses to include end user adaptations.
- 6. Software and Hardware Platform** – Describe the software and hardware platform required, whether the system is hosted or on premise and provide a brief explanation of any exceptions to the City of Fargo standards. City of Fargo Information Technology system requirements are listed in Appendix B.
- 7. Data Conversion** – Describe how the vendor will convert the current Utility Billing data into the new Utility Billing software. Conversion shall include all historical consumption and financial data currently in the existing Utility Billing database.
- 8. Implementation and Training** – This proposal shall include a detailed schedule, identification of project manager, team members and key personnel with clear description of their history and qualifications. Provide an installation plan as part of the

proposal. This plan shall be detailed enough to the City of Fargo shall know every step of the installation process. Each task shall be broken out and described in detail. Describe the approach and resources needed to implement the proposed software. Provide user training approach that will properly prepare staff, supervisors and other key personnel on the day to day use of the new utility billing software. Provide training approach that will properly prepare the City of Fargo Information Technology representatives in the administration management and planned and unplanned maintenance of the new software.

- 9. System Testing and Acceptance** – The City of Fargo cannot accept the software until it has validated that the vendor has met all requirements stated in the RFP. The vendor shall provide all labor and supervision for the installation, testing and final implementation. The City of Fargo, working with the vendor, shall develop acceptance procedures to ensure the software in installed property and accepted. All software provided will be tested to confirm that it complies with all requirements of the RFP. All software is to be free from defects in design, material, workmanship and is capable of sustained performance in the operating environment. All software shall pass the test described below and have the City declare that the Objectives of the test have been met
- Free from operational defects
  - Compliant with all specifications and requirements
  - Delivered and accounted for, including all media, documentation, training and support items.
- 10. Warranty and post implementation support** – The vendor must warranty timely response and remediation of technical problems. If there is a system failure or other problems, the City of Fargo needs to be assured that the vendor shall respond immediately to correct problems so that service is not disrupted. Describe all support resources available. The vendor should provide support that is capable of solving any software related problems during regular business hours. Vendor must also supply a copy of the maintenance agreement that is proposed as well as a description of the software maintenance services, terms and conditions.
- 11. Annual Maintenance and Upgrades** – Vendor shall provide the annual maintenance fees associated with the new utility billing software. Annual maintenance and upgrade costs need to specify hosted versus on premise systems. It is expected that upgrades shall be available to allow City of Fargo to take advantage of improvements in both software and hardware capabilities. The vendor shall provide regular upgrades to the software from the date of implementation. Proposal will describe the upgrade process.
- 12. Pricing** – Provide detailed pricing of all costs to fully implement the successful operation of the proposed utility billing system. Include cost of software license fees, modification, implementation, training, hardware, add on 3<sup>rd</sup> party software, annual maintenance, travel, data conversion and any other anticipated costs. Please use the pricing schedule in Appendix C.

## **Proposed Evaluation and Selection**

The City of Fargo will review submitted proposals and determine those that are most qualified. The City will select a vendor who, in its sole judgement, best suits the current and future needs of the City of Fargo. The evaluation criteria, which are neither weighted nor prioritized, include but are not limited to the following:

- Understanding of the work required by the City of Fargo
- Quality, clarity and responsiveness of the proposal
- Demonstrated competence and professional qualifications necessary for successfully performing the work required by the City of Fargo.
- Recent experience in successfully performing similar services in water and sewer utility agencies in the general geographic area.
- Technological achievements showing forward thinking, what's on the horizon
- Proposed approach in completing the work and ability to implement the replacement in a timely manner
- Background and related experience of the specific individuals to be assigned to the project
- Fee structure and cost effectiveness of the proposal
- References

The City of Fargo will short list two or more vendors to continue with further evaluation. The short list will be selected using criteria identified above. Additional discovery may be performed to assist in selecting the short list vendors. The short list vendor will be contacted regarding their status as a short listed vendor. The City of Fargo reserves the right to award the contract or forego awarding the contract without notice.

If a short list of vendors is developed, the City will further evaluate the short listed vendor's solutions by utilizing scripted scenarios that will demonstrate the ability to meet the requirements in the RFP. Each short listed vendor will be provided the scripted scenarios that they will use to prepare for an on-site demonstration. The short listed vendor will be further evaluated based on the results of reference checks, additional discovery and at the option of the City of Fargo, organized site visits at vendor's customer sites. Customer site should be using the same major version of the software being proposed to the City of Fargo, similar scope and complexity and geographically close to Fargo if possible.

Specific dates and times for each short listed vendor will be determined following the actual selection of short listed vendors. It is expected that the proposed Project Manager take part in the on-site demonstration session. As reflected above, contract award will not be based solely on price, but on a combination of factors as determined to be in the best interest of the City of Fargo. After evaluating the proposals and discussing them further with the finalists or the

tentatively selected vendor the City of Fargo reserves the right to further negotiate the proposed work and or method and amount of compensation.



## **Appendix A:**

### **System Functional Requirements**

## **Appendix A: System Functional Requirements**

### **1. General Functionality**

- a. Compatibility with existing IT infrastructure is preferred
- b. System should support up to 12 concurrent users or 24 named users.
- c. Include user defined fields with parameters defined by the user
- d. Use efficiencies to expedite processes such as setting up new accounts, meter changes, creating service orders, delinquencies and penalties and billing
- e. Provide various levels of security. Access should allow each user group to be granted full access, read only access to limited access. Allow for administration of user access and password administration.
- f. Provide administration including the ability to change or update field values within the system
- g. Provide technical support for software and hardware between 7:30 and 4:30 Central Time Monday through Friday
- h. Interface with cash register, general ledger, meter reading equipment, remittance processing, GIS mapping and web application
- i. Identify if product is address based or parcel based
- j. Product should link address and parcel including stacked parcels
- k. Vendor should describe how PCI-DSS compliance is maintained. Vendor should identify and PII data that should be protected

### **2. Customer Account and Location Management**

- a. Support an unlimited number of accounts
- b. Product should track customer classification and type of services provided
- c. Ability to view all customer account activity in one location, including but not limited to read history, billing history, payment history, notes, etc.
- d. Ability to make changes to customer account from customer account information screen
- e. Ability to define, add, change and delete an unlimited number of account types
- f. Ability to query an account based on various search criteria such as customer name, account number, parcel number, service address.
- g. Provide summary and detail level inquiry of customer accounts, consumption, amount paid per year
- h. Provide user defined fields to be maintained for each record
- i. Ability for unlimited notes on accounts with ability to assign alert flags where needed
- j. Ability to track frozen meter accounts
- k. Ability to provide an audit trail for changes to an account

- l. Support unlimited transaction and consumption history
- m. Accommodate new customers at an existing service address through a transfer function
- n. Ability to track property owner as well as tenant
- o. Ability to transfer customer balances and other related information to a new account when a customer transfers to a new service address
- p. Provide ability to attach scanned documents to a customer record
- q. Provide ability to mark an account as an “internal” account
- r. Provide a CASS certification process to insure and maintain accurate postal information
- s. Ability to track information through the system by customer. Ability to view all accounts a customer has had and current status of accounts
- t. Ability to track an unlimited number of user defined events on an account (i.e. late notices, shut off, sent to collections)
- u. Ability to display account information via web application
- v. Ability to track information through the system by contract or property. Ability to see all accounts at a given property and be able to view all accounts associated with a customer
- w. Single sign on for customers. The City of Fargo has a centralized user account system called “My Fargo” which is used for multiple public facing applications. System should integrate with this single sign on portal. Portal will authenticate users and redirect them to the client application with a JSON Web Token (JWT) containing user data in the URL

### **3. Rates and Fees Management**

- a. Ability to define add, change and delete an unlimited number of rate code types and amounts
- b. Ability to define an effective date for rate tables and prorate charges based on the effective date
- c. Ability to define service rates that are consumption based, fixed, percentage based, tiered or seasonably averaged
- d. Ability to define distribution of fees to multiple general ledger accounts based on user defined account types, fee category, service type or reason code
- e. Ability to prorate customer charges for service to date of occupancy
- f. Ability to back date the date of occupancy
- g. Ability to define, add, change and delete an unlimited number of service types
- h. Ability to calculate industrial pretreatment surcharge (BOD/TSS)
- i. Ability to assess surcharge for groundwater flow into storm sewer based upon surface area of drainage, amount of rainfall and current rate

- j. Ability to stop and start dates for individual fees on an account

#### **4. Meter Reading and Inventory**

- a. Ability to define and add, change and delete an unlimited number of meter types
- b. Ability to maintain an unlimited number of meters
- c. Ability to identify a meter by type size, serial number, manufacturer, location, install date and test date
- d. Provide ability to enter meter reading data through data entry screens from hand held devices or automated meter reading system
- e. Service consumption automatically calculated upon entry of meter reading with ability to edit readings
- f. Allow concurrent meter reading data entry of one route while processing billing for another
- g. Ability to maintain a list of frozen water accounts and send notice to affected property owners.
- h. Ability to list overtime or turn off fees separately on invoice
- i. Maintain meter readings and dates independent of customer or account changes
- j. Provide ability to enter a meter change without interruption of the billing cycle and final billing
- k. Generate work orders based on meter reading exception messages and actions entered along with meter reading
- l. Ability to describe the location of the meter at the service location
- m. Ability to view a history of all meters that have been installed at a service location
- n. Ability to record unlimited notes for a meter
- o. Ability to define meter read types
- p. Ability to estimate meter reads based on user defined history preferences
- q. Ability to estimate reads by route or by cycle, mass estimates
- r. Ability to identify reads that were estimated versus actual
- s. Ability for system to automatically identify roll over readings based on meter setup
- t. Flexible high/low feature that allows the user to set a range of parameters that produce consumption edit
- u. 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
- v. Ability to change meter reading sequence without changing customer account number
- w. Ability to graphically display consumption history for an account
- x. Ability to display average consumption by month and day for an account

- y. Ability to view consumption history in numerical and graphical format via web application
- z. Maintains reading instructions, prints instructions on read sheets and provides information in meter reading hand held equipment
- aa. Allows user to flag individual accounts for which zero consumption is not considered to be an exception
- bb. Prints meter route pages in customer number or route sequence number order

## **5. Billing Management**

- a. Supports single or multi cycle billing system
- b. Provides a complete or exception only billing pre-list for review prior to bill printing
- c. Allows printing of multiple cycles in one billing run
- d. Ability to bill as a regional service provider, billing for other agencies
- e. Generates one utility bill covering all services and charges and itemizes charges separately
- f. Maintains a file of comments for inclusion on utility bills, reminder notices or shut off notices
- g. Ability to send automated email or text communications to customers based on city defined parameters (delinquent accounts, late payment notices, readings out of bounds, etc.)
- h. Provides user defined free form message on bills
- i. Ability to send bills or messages to customer phones or mobile devices
- j. Capable of including, but not limited to, the following information on the bill: billing date, account number, service period, current meter reading, prior meter reading, consumption billed, itemized charges, balance forward, amount due, due date, numerical and graphical prior same period usage and average gallons used per day
- k. Ability to calculate Garbage utility based on garbage can size, number of cans, number of pickups per week, residential versus commercial, garbage and recycle separately
- l. Commercial recycle billing based on recycle type (cardboard, glass, plastic or full recycle)
- m. Ability to track garbage and recycle routes and their pick up day
- n. Ability to charge add on fees (dumpsters, roll offs, large items)
- o. Generates a return stub so that cash receipts can be read with an optical character reader, scanning the account and amount
- p. Provides for billing restart in the event of a billing jam
- q. Ability to view and reprint a past bill at any time
- r. Produces final notices
- s. Ability to produce statements for customers with multiple utility accounts

- t. Ability to sort bills by zip plus four and include intelligent mail barcode to take advantage of postage discounts
- u. Ability to export bills to a file for 3<sup>rd</sup> party printing
- v. Ability to prorate bills for new and closed accounts
- w. Calculates final bills during any cycle based on the internal issuance of a turn off service order or closing a customer account
- x. Supports billing adjustments such as read errors, automatically adjusts billing amount and history
- y. Allows printing of a third party (dual notification) bills during bill run
- z. Ability to not print a paper bill and email the bill to the customer or an option to both print and email
- aa. Ability to maintain multiple email accounts

## **6. Financial Management**

- a. Allows positive or negative transaction adjustment with a complete audit trail
- b. System automatically generates the appropriate journal entries for “internal” accounts
- c. System automatically prepares transaction batches in a batch format for posting to general ledger including billing, cash receipts, NSF’s, adjustments, etc.
- d. Provides automatic allocation of payments to be billed service with ability to adjust or override the default distribution
- e. Accepts over payment or credit adjustment with amount maintained as unapplied credit balance or to be applied to the next service bill
- f. Provides complete audit trail of payments processed for reconciliation prior to general ledger cash posting
- g. Identify preferred treasury management processes, Web, IVR, Pone (smart phone or device) merchant processor
- h. Ability to generate counter invoice detailing charges and balance due
- i. Ability to import payment records from e-payment and lockbox services vendors
- j. Ability to accept full, over, partial and prepayments
- k. Ability to distribute partial payments based on user defined preference (due date, service type or percentage)
- l. Provision for data entry correction of any distribution errors
- m. Provide for auto-pay option for customers to pay from customer’s bank account or credit card
- n. Ability to scan payment information directly into the system using bar code or OCR scanner
- o. Ability to support payment arrangements for customers to schedule payments for outstanding balances

- p. Ability to display transaction history including bills, receipt adjustments, credits and refunds for an account
- q. Ability to display details of transaction and drill down to transaction
- r. Accepts only one deposit per customer account
- s. Ability to automatically apply deposits to a final bill or an account that has been in good standing for a user defined period of time
- t. Ability to automate the credit/refund process by batch
- u. Ability to automatically apply deposits to the correct revenue accounts
- v. Ability to display account transaction history via web application
- w. Ability to pay outstanding balances or set up automatic payment from credit card or checking account via web application
- x. Ability to track deposits and interest on all deposits
- y. Provides ability to initiate bankruptcy on account marking previous balance as uncollectable to maintain account history and provide audit trail for uncollectable balance

#### **7. Delinquency Management**

- a. Ability to age accounts in 30, 60, 90 and 120 day increments
- b. Ability to automatically add late penalties or interest to delinquent accounts according to a flexible rate structure determined by the user
- c. Automatic printing of shut off notices and service orders through interface to service order system
- d. Ability to produce delinquent bills for customers that have already received a final bill but continue to maintain an unpaid balance
- e. Automated special payment arrangements allowing customers to pay amount due over time
- f. Ability to automatically assess a charge to an account if a shut off is processed
- g. Ability to generate a file to transfer unpaid utility balance to property tax records
- h. Allows selected account to be flagged as exempt from past due notices for accounts that have made payment arrangements
- i. Processes account for write off and collection
- j. Maintain a dynamic shut off list that can be automatically or manually updated
- k. Ability to populate third party notification system with account holders information so customer can be notified prior to termination of service

#### **8. Service Order Management**

- a. Ability to define, add, change and delete an unlimited number of service order types
- b. Service order system provides automated updates to the utility billing system upon completion of service order

- c. 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 detail of actual service order
- d. Ability to automatically update customer, location, meter and account information upon completion of service order action
- e. Ability to print or email service orders based upon a user defined selection criteria or defined workflow
- f. Ability to dispatch or receive completed service orders via email
- g. Ability to track work orders and provide reports for active and completed work orders

## **9. Reporting**

- a. Includes standard financial, operational, service work order reports and audit trails
- b. Provide a report library list – provide a list and report format or a link where reports can be viewed
- c. Includes end user reporting tool to create reports based on any field combination or partial field within the utility billing system
- d. Ability to export reports to Microsoft Excel and Word, PDF, TXT and CSV
- e. Ability to generate Ad Hoc reporting
- f. Ability to generate a list of accounts, customers or meters based on user defined selection criteria
- g. Ability to generate analysis reports with user defined parameters with flexible selection criteria and grouping options
- h. Ability to generate yearend financial reports including top ten consumption report and other information required by the Finance team
- i. Manager configurable dashboard for key operational statistics
- j. Integrated graphics allowing review of data



## **Appendix B:**

# **Information Technology Requirements**

**ATTACHMENT**  
**CITY OF FARGO HOSTING QUESTIONS**

Vendor-Hosted (Cloud Provider) Solution Questions

If a vendor-hosted option is being offered, provide a detailed response to the items listed below regarding the hosting environment for the proposed solution.

**Vendor Information:**

1. Name of the product(s):

2. Name of the Vendor:

3. Contact Information:

**System Maintenance:**

4. Describe system maintenance included.

5. How are system enhancements prioritized?

6. Describe the upgrade cycle?

**Reliability and Availability:**

7. How does the hosted solution provide for disaster recovery?

8. Describe your backup process. Include the frequency of backups, if the backup media is stored at an offsite location and how many backup copies are maintained?

9. What redundancy features are available?

10. Describe notification to City of Fargo of scheduled outages?

11. Describe notification to City of Fargo of un-scheduled outages.

12. Are all hosting locations within the United States? Are hosting locations distributed geographically? What is the physical location of each datacenter? If hosted by a third party list the name of the hosting party.?

**Network Capability and Availability:**

13. Describe the backbone connectivity of datacenter(s) to broadband provider(s). Is there physical circuit diversity with respect to how circuits enter the datacenter(s)?

14. What are the speeds of circuits entering the datacenter(s)?

15. What measures are in place to mitigate single points of failure in your network connection(s) to broadband providers?

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16. Do you have metrics about network latency of your solution? If yes, what are they?

**Performance, Capacity and Scalability:**

17. Describe the scalability of the solution.

**Security/Access Control:**

18. Describe the security and auditing and logging capabilities of the hosting environment.

19. How does the solution provide for Single Sign-On (SSO)? Can the solution utilize the City of Fargo's Active Directory implementation? Is that through Active Directory Federation Services (ADFS)?

20. Describe how data contained in the hosting environment is secured. Capability to encrypt data at rest? Capability to encrypt data during transport?

21. Describe products used to test the security of the datacenter?

22. Describe the physical security policy and access control in place in the datacenter.

23. What methods does the system support for securely sharing data with the City of Fargo systems? Describe the secured transmission capability between the datacenter and the City of Fargo.

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24. What audit certifications has the data center passed (SSAE16 audit, FedRAMP, etc.)? Describe how the audit reports will be made available to the City of Fargo upon request.

**Data Management and Records Management:**

25. Describe the ability and process to return the City of Fargo's data upon contract termination? What format?

26. Are copies of backups of the data set available to the City of Fargo throughout the length of the contract?

1. Hosting Services

a. Service Level

CONTRACTOR's failure to make the hosting services available at least 99% of the time in any given month during the term and any renewal term, excluding scheduled maintenance, shall be deemed a service level default ("Service Level Default") and City of Fargo may obtain the non-exclusive remedies set forth below. For purposes of this Contract, "Available" means that City of Fargo users are able to access all features and functions of the licensed product and services including, but not limited to the licensed software and licensed content.

<b>Service Level (Monthly)</b>	<b>Service Level Credit (Prorated Fees – Monthly)</b>
Above 99%	0
98.99 – 97%	10%
96.99 – 95%	25%
94.99 – 93%	50%
Below 93%	100%

In the event CITY OF FARGO is eligible for a 100% Service Level Credit under this section during any given month of the term, or is eligible for a Service Level Credit greater than 10% in any two (2) months, during any rolling twelve (12) month period, CITY OF FARGO may terminate this Contract without penalty upon written notice to CONTRACTOR.

Credits shall be applied against the next invoice. In the event a Service Level Default occurs after a party has given notice of termination, or CITY OF FARGO has made final payment to CONTRACTOR for the software support services and no further invoices shall issue as a result, CONTRACTOR shall refund to CITY OF FARGO the amount of the appropriate Service Level Credit due for the period of default. Once each calendar month during the term of this Contract, CONTRACTOR shall provide CITY OF FARGO with a written report comparing the actual performance of licensed product and services with the Service Level Requirement. Such report shall also contain such other information with respect to the performance of the licensed product and services as mutually agreed upon by the parties from time to time, and in conformity with reporting CONTRACTOR provides to its other customers utilizing the licensed product and services.

b. Scheduled Maintenance and Notifications

1. Standard Maintenance Windows

CONTRACTOR will notify CITY OF FARGO of its' normally scheduled maintenance Windows.

2. Notification of Scheduled Maintenance Downtime

CONTRACTOR shall notify CITY OF FARGO of any schedule maintenance downtime which will cause the total scheduled maintenance downtime for the month to exceed 4 hours, or will occur outside of the Standard Maintenance Windows outlined above. Except in cases of emergency, notification will be

provided at least 24 hours prior to such downtime. In cases of emergency, CONTRACTOR shall use its best efforts to notify CITY OF FARGO of a planned downtime as soon as practicable.

c. Hosting Service Exit Plan

CONTRACTOR and CITY OF FARGO shall develop an Exit Plan ("Exit Plan") detailing each party's respective tasks in connection with the orderly transfer of City of Fargo's data back to CITY OF FARGO upon termination of this Contract. CONTRACTOR agrees that there shall be no additional fees to execute the Exit Plan. CITY OF FARGO agrees to take delivery of transferred CITY OF FARGO data no later than sixty (60) calendar days following termination of this Contract.

The Exit Plan must include:

1. The format and delivery method mutually agreed upon by CONTRACTOR and CITY OF FARGO to transfer CITY OF FARGO data securely
2. The deletion criteria of CITY OF FARGO data from CONTRACTOR's location as determined by the City of Fargo.

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## **ATTACHMENT**

### **TECHNICAL ARCHITECTURE OVERVIEW**

#### **City of Fargo Technical Environment**

The City of Fargo's technical environment consists of Windows based desktops and a variety of server platforms connected via an IP based network. Brief descriptions of each component are provided below.

#### **Desktop Environment**

The de facto desktop standard is an Intel platform running Windows 10 or higher.

#### **Network Services**

All LAN segments are switched Ethernet networks. End User support is provided through a central help desk; this service is available 24x7x365.

#### **Directory Services/Authentication**

The City of Fargo provides a Microsoft Active Directory network domain.

#### **Hosting Services**

The City of Fargo supports the following platforms:

- Windows servers with Microsoft mainstream support; Windows 2012 R2 Server, or newer, is the preferred operating system,
- Intel Red Hat (RHEL) 7.x Linux.

End User support is provided through a central help desk; this service is available 24x7x365.

The standard deployment platform is a HyperV virtual environment hosting either Windows or Red Hat Linux

#### **Database Services**

The City of Fargo provides this database services.:

- Microsoft SQL Server 2012 and newer.

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#### **Web Environment**

The City of Fargo can provide either .NET and J2EE web application environments; test and production environments are available.



### **DMS Environment**

Document Management Services are provided by the following platforms:

- Laserfiche

### **Email Environment**

The City of Fargo Email Environment consists of:

- Microsoft Exchange

### **Geographic Information System (GIS) Environment**

The City of Fargo uses Esri's ArcGIS software suite. Versions 10.6 and higher. The web services are running on Windows servers and the geodatabases are using Microsoft's SQL server. The City is running an enterprise setup with ArcGIS Portal, Geo Event Server and Data Store. The City also utilizes an ArcGIS Online organization account. Our preferred Esri web based development platform is their Java Script API.

### **Business Intelligence Environment**

The City of Fargo supports Cognos, Microsoft SSRS, Crystal Reports, SAS and SPSS.

<b>UTILITY BILLING INTEGRATIONS</b>	<b><u>Activity</u></b>
1. Bi-Directional with Meter Reading Software,	Manual Export /Manual Import
2. BSI applications – input only to Utility Billing system	Scheduled Import
3. Paymentus IVR – bi-directional linkage to Utility Billing system	Scheduled Import / Scheduled Export
4. InfoSend Inc. billing services - output only from Utility Billing system	Manual Export
5. GIS - input only to Utility Billing system (for the most part)	Scheduled Import
6. Wells Fargo	
a. input only internet payments to Utility Billing system	standard NACHA formats
b. output only check and ACH payments from Utility Billing system	standard NACHA formats
7. Water Payments	Import
7. Export to the Accounting System	Export data

## Current Layouts:

1) Bi-Directional with Meter Reading Software			
<b>Export:</b>			
Start Position	Constant Value	System Field	Description
1		RdCy	CYCLE #
5	'0000'		
10		RdRt#	ROUTE #
14	'0000'		
18		RdPage	PAGE # (WALK ORDER)
20		RdSeq	RD SEQ FOR COMP METE
26	' '		
27	'L'		READ DIRECTION
28		WzDigits	# OF DIALS TO READ
41		PadNo	PAD/METER SERIAL #
54	' '		
67	' '		
68	'0'		# OF DECIMALS

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78      '      '
88      '      '
98      HiLmt  HIGH READING LIMIT
108     LoLmt  LOW READING LIMIT
114     '      '
120     '      '
128     '      '
132     '      '
134     'EU'
135     RdTyp  READING TYPE
141     '      '
147     '      '
148     ''
158     '      '
159     ''
160     'A'
162     ''
172     PrevRd   PREV READING AMT
178     PrevDt  PREV READING DATE
203     SAdrWc   SERVICE ADDRESS
227     Nm1Wc   CONTACT NAME
223     ''
226     WkTyp  PAD LOCATION CODE
274     AD     MEMO NOTES
298     Blnk24 24 BLANK SPACES
466     Blnk192 192 BLANK SPACES
467     ''
476     WcAcct   ACCOUNT #
507     Blnk30 30 BLANK SPACES

```

**Import:**

```

DSPFILER  5/14/19 9:08:28  FILE LAYOUT    PAGE 1
FILE - WAPCFR  LIBRARY - WATERDATA  FILE TYPE - PHYSICAL
RECORD FORMAT - RLPCFR    TEXT - METER READING IMPORT/EXPORT

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-----
FIELD    POS POS FLD FLD DEC
NAME     FROM TO TYP LNG POS TEXT
-----
PFRDRT#   1 10 A 10  ROUTE ID
PFRWLKSEQ 11 14 S  4 4,0 WALK SEQUENCE
PFRPAGE   15 18 S  4 4,0 PAGE NUMBER
PFRREADSEQ 19 20 S  2 2,0 READ SEQUENCE
PFRHANDID 21 26 A  6   HANDHELD ID
PFRREADDIR 27 27 A  1   READ DIRECTION
PFR#DIALS 28 28 A  1   NUMBER OF DIALS
PFRIDEXP  29 41 A 13   ID EXPECTED
PFRIDCAP  42 54 A 13   ID CAPTURED
PFRIDOVR  55 67 A 13   ID OVERRIDE
PFR#DEC   68 68 S  1 1,0 # OF DEC IN READING FLD
PFRMETREAD 69 78 A 10  METER READING

```

PFRREADOVR	79	88	A	10	READING OVERRIDE
PFRHIGHLMT	89	98	A	10	HIGH READING LIMIT
PFRLOWLMT	99	108	A	10	LOW READING LIMIT
PFRRDMDY	109	114	A	6	DATE TO READ
PFREXPMDY	115	120	A	6	DATE TO EXPORT
PFRNOTES	121	128	A	8	NOTES
PFRLOCCD	129	130	A	2	LOCATION CODE
PFRMRCODE	131	132	A	2	METER READER CODE
PFRRECTYPE	133	134	A	2	RECORD TYPE
PFRRECSTAT	135	135	A	1	RECORD STATUS
PFRCPMDY	136	141	A	6	DATE READING CAPTURED
PFRCPPTIME	142	147	A	6	TIME READING CAPTURED
PFRRDCLASS	148	148	A	1	READING CLASSIFICATION
PFRNETWRK#	149	150	A	2	NETWORK # FROM PROREAD
PFRATTEMPT	151	151	A	1	# OF READ ATTEMPTS
PFRUSERCHR	152	158	A	7	USER CHAR FROM PROREAD
PFRMANFCTR	159	159	A	1	METER MANUFACTURER
PFRACTIN	160	160	A	1	ACTIVE/INACTIVE
PFRMETRTYP	161	161	A	1	TYPE OF METER
PFRFAILCOD	162	162	A	1	READ FAIL CODE
PFRPRVREAD	163	172	S	10	10, 0 PREVIOUS READING
PFRPRVMDY	173	178	A	6	PREVIOUS READ DATE
PFRDSP1_1	179	202	A	24	DISPLAY 1 LINE 1
PFRDSP1_2	203	226	A	24	DISPLAY 1 LINE 2
PFRDSP1_3	227	250	A	24	DISPLAY 1 LINE 3
PFRDSP1_4	251	274	A	24	DISPLAY 1 LINE 4
PFRDSP2_1	275	298	A	24	DISPLAY 2 LINE 1
PFRDSP2_2	299	322	A	24	DISPLAY 2 LINE 2
PFRDSP2_3	323	346	A	24	DISPLAY 2 LINE 3
PFRDSP2_4	347	370	A	24	DISPLAY 2 LINE 4
PFRDSP2_5	371	394	A	24	DISPLAY 2 LINE 5
PFRDSP2_6	395	418	A	24	DISPLAY 2 LINE 6
PFRDSP2_7	419	442	A	24	DISPLAY 2 LINE 7
PFRDSP2_8	443	466	A	24	DISPLAY 2 LINE 8
PFRDSPOP	467	467	A	1	DISPLAY 2 OP. CODE
PFRACCT	468	476	A	9	ACCOUNT NUMBER
PFRUTFLD	477	507	A	31	UTILITY FIELD

2) BSI applications – input only to Utility Billing system

1 2 Jurs#  
3 6 Addn#  
7 11 Prop#

12 14 Splt#  
 15 16 Segld  
 17 31 Addr#  
 34 46 AdrSfx  
 47 58 AdrDir  
 59 106 AdrRwy  
 109 158 RwySfx  
 159 160 DirSfx  
 161 170 Typld  
 171 180 TypNum  
 181 300 Address

3) Paymentus IVR – bi-directional linkage to Utility Billing system

**Export**

DSPFILER 5/14/19 9:12:18 FILE LAYOUT PAGE 1  
 FILE - WAIVRBAL LIBRARY - WATERDATA FILE TYPE - PHYSICAL  
 RECORD FORMAT - RLIVRBAL TEXT - IVR PREV ACCT BALANCES

-----  
 FIELD POS POS FLD FLD DEC  
 NAME FROM TO TYP LNG POS TEXT

-----  
 WBACCT 1 9 A 9 ACCOUNT NUMBER  
 WBPRVBAL 10 18 S 9 9,2 PREV BALANCE  
 WBNAME 19 63 A 45 SIGNER FULL NAME  
 WBCAREOF 64 108 A 45 CARE OF ADDRESS  
 WBMADRTXT 109 153 A 45 MAILING ADDRESS TEXT  
 WBMCIITY 154 178 A 25 CITY  
 WBMSTATE 179 180 A 2 STATE  
 WBMZIP 181 190 A 10 ZIP CODE  
 WBSBMDATE 191 200 L 10 PREV SUBMIT DATE  
 WBBILDATE 201 210 L 10 PREV BILLED DATE

**Import**

DSPFILER 5/14/19 9:12:25 FILE LAYOUT PAGE 1  
 FILE - WAIVRIMP LIBRARY - WATERDATA FILE TYPE - PHYSICAL  
 RECORD FORMAT - RLIVRIMP TEXT - WATER IVR IMPORT FILE

-----  
 FIELD POS POS FLD FLD DEC  
 NAME FROM TO TYP LNG POS TEXT

CONFRM	1	32	A	32	CONFIRMATION CODE
PAYAMT	33	41	S	9 9, 2	PAYMENT AMOUNT
FEEAMT	42	50	S	9 9, 2	CONVIENANCE FEE
TOTAMT	51	59	S	9 9, 2	TOTAL AMOUNT
PAYTYPE	60	91	A	32	PAYMENT TYPE
IMPACCT	92	123	A	32	ACCOUNT NUMBER
FSTNAME	124	155	A	32	FIRST NAME
LSTNAME	156	187	A	32	LAST NAME
PHONE	188	197	A	10	PHONE NUMBER
PAYDATIM	198	217	A	20	PAYMENT DATE & TIME
PAYMETHOD	218	237	A	20	PAYMENT METHOD TYPE
PAYMETH#	238	262	A	25	PAYMENT METHOD NUM
ORIGIN	263	294	A	32	PAYMENT ORIGIN
CHANNEL	295	326	A	32	PAYMENT CHANNEL
ORIGINATOR	327	358	A	32	PAYMENT ORIGINATOR
STATCD	359	390	A	32	PAYMENT STATUS CODE
STATDSC	391	454	A	64	PAYMENT STATUS DESC

4) InfoSend Inc. billing services - output only from Utility Billing system

DSPFILER 5/14/19 9:11:54 FILE LAYOUT PAGE 1  
FILE - WABLEXP LIBRARY - WATERDATA FILE TYPE - PHYSICAL  
RECORD FORMAT - RLBLEXP TEXT - CUSTOMER BILLING EXPORT FILE

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-----
FIELD   POS POS FLD FLD DEC
NAME    FROM TO TYP LNG POS TEXT
-----
WXACCT10  1 10 A 10  ACCOUNT NUMBER
WXCUSTYPE 11 21 A 11  CUSTOMER TYPE
WXBLDATE  22 31 L 10  BILLING DATE
WXSADR    32 81 A 50  SERVICE ADDRESS
WXNAME    82 131 A 50  CUSTOMER NAME
WXCAREOF 132 181 A 50  CARE OF ADDRESS
WXADR3    182 231 A 50  ADDRESS
WXCITY    232 256 A 25  CITY
WXSTATE   257 258 A 2  STATE
WXZIP     259 268 A 10  ZIP CODE
WXPVBAL   269 277 S 9 9, 2 PREV BALANCE
WXPYMT1   278 286 S 9 9, 2 PAYMENT 1
WXPYDATE1 287 296 L 10  PAYMENT DATE 1
WXPYMT2   297 305 S 9 9, 2 PAYMENT 2
WXPYDATE2 306 315 L 10  PAYMENT DATE 2
WXADJUST  316 324 S 9 9, 2 ADJUSTMENT

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WXBALFWD 325 333 S 9 9, 2 BALANCE FWD  
 WXWA\$ 334 342 S 9 9, 2 WATER  
 WXSWS\$ 343 351 S 9 9, 2 SEWER  
 WXGR\$ 352 360 S 9 9, 2 GARBAGE  
 WXADDGR\$ 361 369 S 9 9, 2 ADDED GARBAGE  
 WXSS\$ 370 378 S 9 9, 2 STORM SEWER  
 WXFD\$ 379 387 S 9 9, 2 FORESTRY  
 WXSL\$ 388 396 S 9 9, 2 STREET LIGHTS  
 WXMC\$ 397 405 S 9 9, 2 MOSQUITO CONTROL  
 WXRC\$ 406 414 S 9 9, 2 RECYCLE  
 WXSP\$ 415 423 S 9 9, 2 SUMP PUMP  
 WXL\$ 424 432 S 9 9, 2 LATE FEE  
 WXFEES\$ 433 441 S 9 9, 2 OTHER FEES  
 WXONOFF\$ 442 450 S 9 9, 2 OON/OFF FEES  
 WXNSF\$ 451 459 S 9 9, 2 NSF FEES  
 WXSNOBDS\$ 460 468 S 9 9, 2 SNOW BIRD FEES  
 WXBOD\$ 469 477 S 9 9, 2 BOD SURCHARGE  
 WXTSS\$ 478 486 S 9 9, 2 TSS SURCHARGE  
 WXSWDSC\$ 487 495 S 9 9, 2 SEWAGE DISCOUNT AMT  
 WXCURCHG 496 504 S 9 9, 2 CURRENT CHARGES  
 WXNET 505 513 S 9 9, 2 NET AMOUNT  
 WXSZDESC 514 523 A 10 METER SIZE SHORT DESC  
 WXRESUNIT 524 526 S 3 3, 0 RESIDENTIAL UNITS  
 WXAPYN 527 527 A 1 AUTO PAY Y/N  
 WXDUEDATE 528 537 L 10 DUE DATE  
 WXM1PVRD 538 545 S 8 8, 0 PREVIOUS READING  
 WXM1PRRD 546 553 S 8 8, 0 PRESENT READING  
 WXM1DATE1 554 563 L 10 DATE FIELD \*USA  
 WXM1DAYS1 564 566 S 3 3, 0 DAYS  
 WXM1CONS1 567 572 S 6 6, 0 CONSUMPTION  
 WXM1DATE2 573 582 L 10 DATE FIELD \*USA  
 WXM1DAYS2 583 585 S 3 3, 0 DAYS  
 WXM1CONS2 586 591 S 6 6, 0 CONSUMPTION  
 WXM1DATE3 592 601 L 10 DATE FIELD \*USA  
 DSPFILER 5/14/19 9:11:54 FILE LAYOUT PAGE 2  
 FILE - WABLEXP LIBRARY - WATERDATA FILE TYPE - PHYSICAL  
 RECORD FORMAT - RLBLEXP TEXT - CUSTOMER BILLING EXPORT FILE

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FIELD NAME	POS FROM	POS TO	FLD TYP	FLD LNG	DEC POS	TEXT
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WXM1DAYS3	602	604	S	3	3, 0	DAYS
WXM1CONS3	605	610	S	6	6, 0	CONSUMPTION
WXM1DATE4	611	620	L	10		DATE FIELD *USA
WXM1DAYS4	621	623	S	3	3, 0	DAYS
WXM1CONS4	624	629	S	6	6, 0	CONSUMPTION
WXM1DATE5	630	639	L	10		DATE FIELD *USA
WXM1DAYS5	640	642	S	3	3, 0	DAYS
WXM1CONS5	643	648	S	6	6, 0	CONSUMPTION
WXM1DATE6	649	658	L	10		DATE FIELD *USA
WXM1DAYS6	659	661	S	3	3, 0	DAYS

WXM1CONS6 662 667 S 6 6, 0 CONSUMPTION  
 WXM1DATE7 668 677 L 10 DATE FIELD \*USA  
 WXM1DAYS7 678 680 S 3 3, 0 DAYS  
 WXM1CONS7 681 686 S 6 6, 0 CONSUMPTION  
 WXM1DATE8 687 696 L 10 DATE FIELD \*USA  
 WXM1DAYS8 697 699 S 3 3, 0 DAYS  
 WXM1CONS8 700 705 S 6 6, 0 CONSUMPTION  
 WXM1DATE9 706 715 L 10 DATE FIELD \*USA  
 WXM1DAYS9 716 718 S 3 3, 0 DAYS  
 WXM1CONS9 719 724 S 6 6, 0 CONSUMPTION  
 WXM1DATE10 725 734 L 10 DATE FIELD \*USA  
 WXM1DAYS10 735 737 S 3 3, 0 DAYS  
 WXM1CONS10 738 743 S 6 6, 0 CONSUMPTION  
 WXM1DATE11 744 753 L 10 DATE FIELD \*USA  
 WXM1DAYS11 754 756 S 3 3, 0 DAYS  
 WXM1CONS11 757 762 S 6 6, 0 CONSUMPTION  
 WXM1DATE12 763 772 L 10 DATE FIELD \*USA  
 WXM1DAYS12 773 775 S 3 3, 0 DAYS  
 WXM1CONS12 776 781 S 6 6, 0 CONSUMPTION  
 WXM1DATE13 782 791 L 10 DATE FIELD \*USA  
 WXM1DAYS13 792 794 S 3 3, 0 DAYS  
 WXM1CONS13 795 800 S 6 6, 0 CONSUMPTION  
 WXM2PVRD 801 808 S 8 8, 0 PREVIOUS READING  
 WXM2PRRD 809 816 S 8 8, 0 PRESENT READING  
 WXM2DATE1 817 826 L 10 DATE FIELD \*USA  
 WXM2DAYS1 827 829 S 3 3, 0 DAYS  
 WXM2CONS1 830 835 S 6 6, 0 CONSUMPTION  
 WXM2DATE2 836 845 L 10 DATE FIELD \*USA  
 WXM2DAYS2 846 848 S 3 3, 0 DAYS  
 WXM2CONS2 849 854 S 6 6, 0 CONSUMPTION  
 WXM2DATE3 855 864 L 10 DATE FIELD \*USA  
 WXM2DAYS3 865 867 S 3 3, 0 DAYS  
 WXM2CONS3 868 873 S 6 6, 0 CONSUMPTION  
 WXM2DATE4 874 883 L 10 DATE FIELD \*USA  
 WXM2DAYS4 884 886 S 3 3, 0 DAYS  
 WXM2CONS4 887 892 S 6 6, 0 CONSUMPTION  
 WXM2DATE5 893 902 L 10 DATE FIELD \*USA  
 WXM2DAYS5 903 905 S 3 3, 0 DAYS  
 WXM2CONS5 906 911 S 6 6, 0 CONSUMPTION  
 WXM2DATE6 912 921 L 10 DATE FIELD \*USA  
 DSPFILER 5/14/19 9:11:54 FILE LAYOUT PAGE 3  
 FILE - WABLEXP LIBRARY - WATERDATA FILE TYPE - PHYSICAL  
 RECORD FORMAT - RLBLEXP TEXT - CUSTOMER BILLING EXPORT FILE

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FIELD NAME	POS	POS	FLD	FLD	DEC	POS	TEXT
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WXM2DAYS6 922 924 S 3 3, 0 DAYS  
 WXM2CONS6 925 930 S 6 6, 0 CONSUMPTION  
 WXM2DATE7 931 940 L 10 DATE FIELD \*USA  
 WXM2DAYS7 941 943 S 3 3, 0 DAYS



WXM2CONS7 944 949 S 6 6, 0 CONSUMPTION  
 WXM2DATE8 950 959 L 10 DATE FIELD \*USA  
 WXM2DAYS8 960 962 S 3 3, 0 DAYS  
 WXM2CONS8 963 968 S 6 6, 0 CONSUMPTION  
 WXM2DATE9 969 978 L 10 DATE FIELD \*USA  
 WXM2DAYS9 979 981 S 3 3, 0 DAYS  
 WXM2CONS9 982 987 S 6 6, 0 CONSUMPTION  
 WXM2DATE10 988 997 L 10 DATE FIELD \*USA  
 WXM2DAYS10 998 1000 S 3 3, 0 DAYS  
 WXM2CONS10 1001 1006 S 6 6, 0 CONSUMPTION  
 WXM2DATE11 1007 1016 L 10 DATE FIELD \*USA  
 WXM2DAYS11 1017 1019 S 3 3, 0 DAYS  
 WXM2CONS11 1020 1025 S 6 6, 0 CONSUMPTION  
 WXM2DATE12 1026 1035 L 10 DATE FIELD \*USA  
 WXM2DAYS12 1036 1038 S 3 3, 0 DAYS  
 WXM2CONS12 1039 1044 S 6 6, 0 CONSUMPTION  
 WXM2DATE13 1045 1054 L 10 DATE FIELD \*USA  
 WXM2DAYS13 1055 1057 S 3 3, 0 DAYS  
 WXM2CONS13 1058 1063 S 6 6, 0 CONSUMPTION  
 WXM3PVRD 1064 1071 S 8 8, 0 PREVIOUS READING  
 WXM3PRRD 1072 1079 S 8 8, 0 PRESENT READING  
 WXM3DATE1 1080 1089 L 10 DATE FIELD \*USA  
 WXM3DAYS1 1090 1092 S 3 3, 0 DAYS  
 WXM3CONS1 1093 1098 S 6 6, 0 CONSUMPTION  
 WXM3DATE2 1099 1108 L 10 DATE FIELD \*USA  
 WXM3DAYS2 1109 1111 S 3 3, 0 DAYS  
 WXM3CONS2 1112 1117 S 6 6, 0 CONSUMPTION  
 WXM3DATE3 1118 1127 L 10 DATE FIELD \*USA  
 WXM3DAYS3 1128 1130 S 3 3, 0 DAYS  
 WXM3CONS3 1131 1136 S 6 6, 0 CONSUMPTION  
 WXM3DATE4 1137 1146 L 10 DATE FIELD \*USA  
 WXM3DAYS4 1147 1149 S 3 3, 0 DAYS  
 WXM3CONS4 1150 1155 S 6 6, 0 CONSUMPTION  
 WXM3DATE5 1156 1165 L 10 DATE FIELD \*USA  
 WXM3DAYS5 1166 1168 S 3 3, 0 DAYS  
 WXM3CONS5 1169 1174 S 6 6, 0 CONSUMPTION  
 WXM3DATE6 1175 1184 L 10 DATE FIELD \*USA  
 WXM3DAYS6 1185 1187 S 3 3, 0 DAYS  
 WXM3CONS6 1188 1193 S 6 6, 0 CONSUMPTION  
 WXM3DATE7 1194 1203 L 10 DATE FIELD \*USA  
 WXM3DAYS7 1204 1206 S 3 3, 0 DAYS  
 WXM3CONS7 1207 1212 S 6 6, 0 CONSUMPTION  
 WXM3DATE8 1213 1222 L 10 DATE FIELD \*USA  
 WXM3DAYS8 1223 1225 S 3 3, 0 DAYS  
 WXM3CONS8 1226 1231 S 6 6, 0 CONSUMPTION  
 WXM3DATE9 1232 1241 L 10 DATE FIELD \*USA  
 DSPFILER 5/14/19 9:11:54 FILE LAYOUT PAGE 4  
 FILE - WABLEXP LIBRARY - WATERDATA FILE TYPE - PHYSICAL  
 RECORD FORMAT - RLBLEXP TEXT - CUSTOMER BILLING EXPORT FILE

-----  
 FIELD POS POS FLD FLD DEC

NAME	FROM	TO	TYP	LNG	POS	TEXT
WXM3DAYS9	1242	1244	S	3	3,0	DAYS
WXM3CONS9	1245	1250	S	6	6,0	CONSUMPTION
WXM3DATE10	1251	1260	L	10		DATE FIELD *USA
WXM3DAYS10	1261	1263	S	3	3,0	DAYS
WXM3CONS10	1264	1269	S	6	6,0	CONSUMPTION
WXM3DATE11	1270	1279	L	10		DATE FIELD *USA
WXM3DAYS11	1280	1282	S	3	3,0	DAYS
WXM3CONS11	1283	1288	S	6	6,0	CONSUMPTION
WXM3DATE12	1289	1298	L	10		DATE FIELD *USA
WXM3DAYS12	1299	1301	S	3	3,0	DAYS
WXM3CONS12	1302	1307	S	6	6,0	CONSUMPTION
WXM3DATE13	1308	1317	L	10		DATE FIELD *USA
WXM3DAYS13	1318	1320	S	3	3,0	DAYS
WXM3CONS13	1321	1326	S	6	6,0	CONSUMPTION
WXG1LAB1	1327	1334	A	8		GRAPH 1 LAB 1
WXG1CONS1	1335	1340	S	6	6,0	GRAPH 1 CONS 1
WXG1LAB2	1341	1348	A	8		GRAPH 1 LAB 2
WXG1CONS2	1349	1354	S	6	6,0	GRAPH 1 CONS 2
WXG1LAB3	1355	1362	A	8		GRAPH 1 LAB 3
WXG1CONS3	1363	1368	S	6	6,0	GRAPH 1 CONS 3
WXG1LAB4	1369	1376	A	8		GRAPH 1 LAB 4
WXG1CONS4	1377	1382	S	6	6,0	GRAPH 1 CONS 4
WXG1LAB5	1383	1390	A	8		GRAPH 1 LAB 5
WXG1CONS5	1391	1396	S	6	6,0	GRAPH 1 CONS 5
WXG1LAB6	1397	1404	A	8		GRAPH 1 LAB 6
WXG1CONS6	1405	1410	S	6	6,0	GRAPH 1 CONS 6
WXG1LAB7	1411	1418	A	8		GRAPH 1 LAB 7
WXG1CONS7	1419	1424	S	6	6,0	GRAPH 1 CONS 7
WXG1LAB8	1425	1432	A	8		GRAPH 1 LAB 8
WXG1CONS8	1433	1438	S	6	6,0	GRAPH 1 CONS 8
WXG1LAB9	1439	1446	A	8		GRAPH 1 LAB 9
WXG1CONS9	1447	1452	S	6	6,0	GRAPH 1 CONS 9
WXG1LAB10	1453	1460	A	8		GRAPH 1 LAB 10
WXG1CONS10	1461	1466	S	6	6,0	GRAPH 1 CONS 10
WXG1LAB11	1467	1474	A	8		GRAPH 1 LAB 11
WXG1CONS11	1475	1480	S	6	6,0	GRAPH 1 CONS 11
WXG1LAB12	1481	1488	A	8		GRAPH 1 LAB 12
WXG1CONS12	1489	1494	S	6	6,0	GRAPH 1 CONS 12
WXG2CONS1	1495	1500	S	6	6,0	GRAPH 2 CONS 1
WXG2CONS2	1501	1506	S	6	6,0	GRAPH 2 CONS 2
WXG2CONS3	1507	1512	S	6	6,0	GRAPH 2 CONS 3
WXG2CONS4	1513	1518	S	6	6,0	GRAPH 2 CONS 4
WXG2CONS5	1519	1524	S	6	6,0	GRAPH 2 CONS 5
WXMSG1	1525	1569	A	45		BILLING MSG 1
WXMSG2	1570	1614	A	45		BILLING MSG 2
WXMSG3	1615	1659	A	45		BILLING MSG 3
WXEMAIL	1660	1719	A	60		EMAIL ADDRESS
WXBILLFMT	1720	1720	A	1		BILLING FORMAT

## **Appendix C:**

### **Pricing/Cost Proposal**

## Pricing

- The City of Fargo requests pricing be shown using both Hosted and On Premise solutions.
- Pricing should be shown over a 5 year period
- Example spreadsheet is attached

	Cumulative Costs							
	Year 1	Year 2	Year 3	Year 4	Year 5			
<b>On-Premise</b>	\$12	\$12	\$12	\$12	\$12			
	<b>On-Premise</b>							
	Year 1	Year 2	Year 3	Year 4	Year 5			
Number of users	1	0	0	0	0			
Subscription fee per user per month	\$1	\$0	\$0	\$0	\$0			
Annual Subscription Costs:	\$12	\$0	\$0	\$0	\$0	\$12		
<b>Hardware/Infrastructure Costs</b>							Totals	%
Servers	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	
Peripherals	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	
Network	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	
Other	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	
...						\$0		
<b>Total Hardware/Infrastructure Costs</b>	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	
<b>Communication</b>								
Local Area Network	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%	
Wide Area Network	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%	
Remote Access	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%	
...	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%	
<b>Total Communication Costs</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%	
<b>Software</b>								
License/Subscription Fees (From top entry)	\$ 12	\$ -	\$ -	\$ -	\$ -	\$ 12	100.0%	
Maintenance Fees						\$ -		
...						\$ -		
<b>Total Software Costs</b>	\$ 12	\$ -	\$ -	\$ -	\$ -	\$ 12	100.0%	
<b>Implementation</b>								
Development/customization/integration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%	
Training	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%	
Consulting	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%	
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%	
...	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%	
<b>Total Implementation Costs</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%	
<b>Management/Maintenance</b>								
Hardware & software upgrades	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	
Hardware & software administration	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	
Other	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	
...						\$0	0.0%	
<b>Total Management Costs</b>	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	
<b>Support</b>								
Support staff	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	
Staff training	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	
Travel	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	
Support contracts	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	
Overhead labor	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	
...						\$0	0.0%	
...						\$0	0.0%	
<b>Total Support Costs</b>	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	
<b>Total Costs</b>	\$ 12	\$ -	\$ -	\$ -	\$ -	\$ 12		

	Cumulative Costs						
	Year 1	Year 2	Year 3	Year 4	Year 5		
<b>SaaS</b>	\$12	\$12	\$12	\$12	\$12		
	<b>Software-as-a-Service (SaaS)</b>						
	Year 1	Year 2	Year 3	Year 4	Year 5		
Number of users	1	0	0	0	0		
Subscription fee per user per month	\$1	\$0	\$0	\$0	\$0		
Annual Subscription Costs:	\$12	\$0	\$0	\$0	\$0	\$12	
<b>Hardware/Infrastructure Costs</b>						Totals	%
Servers	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Peripherals	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Network	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Other	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
...						\$0	
<b>Total Hardware/Infrastructure Costs</b>	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
<b>Communication</b>							
Local Area Network	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%
Wide Area Network	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%
Remote Access	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%
...	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%
<b>Total Communication Costs</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%
<b>Software</b>							
License/Subscription Fees (From top entry)	\$ 12	\$ -	\$ -	\$ -	\$ -	\$ 12	100.0%
Maintenance Fees						\$ -	
...						\$ -	
<b>Total Software Costs</b>	\$ 12	\$ -	\$ -	\$ -	\$ -	\$ 12	100.0%
<b>Implementation</b>							
Development/customization/integration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%
Training	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%
Consulting	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%
...	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%
<b>Total Implementation Costs</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%
<b>Management/Maintenance</b>							
Hardware & software upgrades	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Hardware & software administration	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Other	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
...						\$0	0.0%
<b>Total Management Costs</b>	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
<b>Support</b>							
Support staff	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Staff training	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Travel	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Support contracts	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Overhead labor	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
...						\$0	0.0%
...						\$0	0.0%
<b>Total Support Costs</b>	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
<b>Total Costs</b>	\$ 12	\$ -	\$ -	\$ -	\$ -	\$ 12	