



City of 
Yorkton
AMI Journey

National Water and Wastewater Conference 2022
November 6 – 9, 2022
Halifax, Nova Scotia



Agenda

✓ Goals for the AMI Program

✓ Program Execution

✓ Customer Service Benefits

✓ Lessons Learned

✓ Change Management

Project Team

- ✓ Director of Public Works
 - ✓ Water / Sewer Systems Manager
- ✓ Director of Environmental Services & Capital Projects
 - ✓ Assistant Director of Environmental Services
 - ✓ Director of Finance
 - ✓ Water Meter Technician
 - ✓ Utility Billing Department Staff
- ✓ IT Department Staff and myself

Goals of the Program – Why?

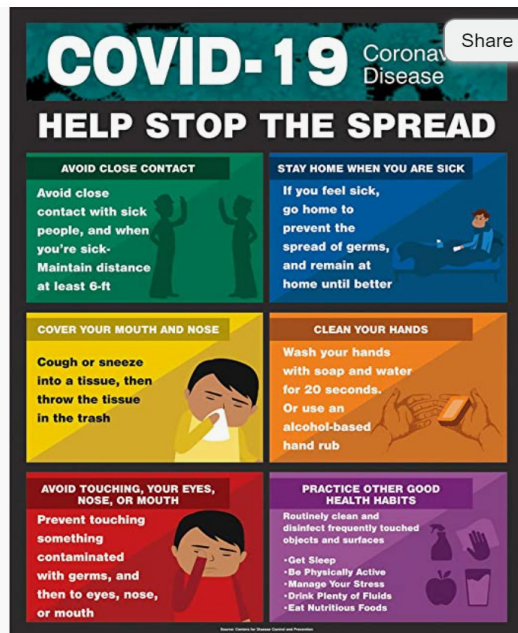
- ✓ Replace water meters near the end of their useful life
- ✓ Leverage existing metering assets if possible
- ✓ Lessen our carbon footprint by eliminating the need for manual meter reads
- ✓ Reduced operational costs and safety hazards

Goals of the Program – Cont'd

- ✓ Reallocate staff to better utilize their skills and training
- ✓ Improve service to utility customers
 - ✓ Provide notification when abnormal conditions occur
 - ✓ Eliminate estimating bills in our bi-monthly billing cycles
 - ✓ Provide online access to consumption and billing information
- ✓ Ability to analyze and compare data

Goals of the Program – Cont'd

- Partner with a Supplier with a proven history of successful project deployment.



- For the City of Yorkton, this was especially important during a pandemic!

HOW DID WE GET THIS DONE?



TIP #1

✓ COMMUNICATION IS KEY

✓ Before, During and After

✓ Include ALL staff who will be involved in any way in the execution of the project

✓ Begin Communication with the Community Early

TIP #2

✓ INITIATE DISCUSSION WITH YOUR UTILITY BILLING SOFTWARE PROVIDER EARLY!!

- Essential to ensure your Utility Billing Software is up-to-date
- How does the UB Software manage meter change information?
- Discuss your plans and access their experts

TIP #2

✓ INITIATE DISCUSSION WITH YOUR UTILITY BILLING SOFTWARE PROVIDER EARLY!! – CONT'D

- Can they automate data updates?
- What are the costs and timelines?



TIP #3

✓ REVIEW AND UPDATE YOUR WATER BYLAW

The Bylaw Should Consider:

- Customer's responsibility to provide suitable access:
 - Provide a suitable and accessible location for the installation
 - Provide an isolation valve, upstream and downstream of the water meter.
 - No person shall alter or tamper with any service connection --- including any consequences should this be discovered

TIP #3

✓ REVIEW AND UPDATE YOUR WATER BYLAW - CONT'D

The Bylaw Should Consider:

- If a customer refuses or prevents in any way access, the City shall:
 - add an additional fifty percent usage surcharge until the customer is compliant
 - OR the City may deem it appropriate to shut off the water supply to that premise

Steps to Program Execution

Utility Billing Preparation

- Ensure Utility Billing Software is up-to-date
- Discuss Integration Timelines, costs and processes with your UB Software Provider
- Essential to identify what additional administrative support may be required

Research

- Talk to Suppliers
- Talk with other Municipalities who may have recently completed or are currently implementing a similar program

RFP

- Utilize what you have learned in your research to issue a Request for Proposals

Project Award

- ✓ Neptune AMI Technology
- ✓ Embarking on the AMI Journey
- ✓ R900® Endpoint Building Block
- ✓ Build on Approach to AMR and AMI
- ✓ Smart Water AMI Networks
- ✓ Neptune® 360™ Platform Support

Program Execution – Cont'd

Meter Inventory

- 6,474 Metered Accounts (Various Ages and existing Technology)
- Upgrading of any existing residential and commercial water meters >5 years old
- Retrofitting to AMI technology without replacing the entire water meter

Roll-Out

- 3 Phase Approach (Start-Up/Planning, Main Work, Winddown)
- 8 Month Duration
- Cross-Departmental City /Contract Team

TIP #4

✓ DETERMINE AN INSTALLATION SCHEDULE THAT COINCIDES WITH YOUR NORMAL UTILITY BILLING CYCLES

- ✓ Our billing cycles are bi-monthly – work with your supplier to coincide meter change with normal billing month
- ✓ Reduces time to process updates within the Utility Billing Software
- ✓ Coordinated process with Neptune to make a schedule that would work for both sides.
- ✓ Saves time and stress on staff and billing questions from residents

Program Execution – Cont'd

Meter Inventory

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Roll-Out

- 3 Phase Approach (Start-Up/Planning, Main Work, Winddown)
- 8 Month Duration
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Final Acceptance

- 4 Data Collectors/Redundant Systems
- Project Delivered On Time, On time, On Budget and in Adherence to Contract Terms and Conditions

TIP #5

✓ SOFT REFUSAL MANAGEMENT

- ✓ Soft refusals are accounts which don't respond to any of the attempts by your supplier schedule an appointment.
- ✓ Municipality needs a process to support while you have your supplier on site and access to their online booking systems
- ✓ ***SUGGESTION: Put procedures in place to update contact information whenever there is an opportunity.***

AND



TIP #6

FINAL DISCONNECTION NOTICE

Water Meter Replacement Program

Address: _____

Date: _____ Time: _____

An appointment to have your water meter replaced must be arranged within 48 Hours or water services at this address will be disconnected.

**FINAL NOTICES
DO WORK**

**CALL TODAY TO BOOK YOUR
APPOINTMENT**

1-800-667-4387

City of Yorkton By-law 07/2021



Managing Customer Concerns

COVID 19 Precautionary Safety Measures



NEPTUNE PRECAUTIONARY SAFETY MEASURES

At Neptune, the safety and well-being of both the property owner/occupant and our technicians are always our top priority. Rest assured that we are actively monitoring the COVID-19 situation and are taking precautionary measures to aid in keeping our communities safe. As part of the essential service of providing safe and clean drinking water to our utilities' customers, we are committed to implementing best practices to help prevent the spread of disease while ensuring a high level of customer service.

To help with prevention, we are taking the following precautionary measures to protect both the property owner/occupant and our technicians:

- Neptune technicians will check their temperature at the start of each day before they are approved to begin work and every 5 hours thereafter. Any technician that shows any signs of illness/symptoms will be asked to stay home and self-isolate.
- Neptune technicians will maintain a minimum of 6-feet separation from residents when entering and exiting the home.
- Neptune technicians will ask owner/occupants to open all doors and/or panels in route to the water meter wherever possible.
- Neptune technicians will ask owner/occupants to remove any objects surrounding the water meter.
- Neptune technicians will wash their hands before and after each job. This will be done with a soap and water solution or using an alcohol-based sanitizer that is greater than 60% alcohol.
- At an owner/occupant's request and where required by the Utility, Neptune technicians will wear a mask and gloves. When used, the appropriate protocols will be used to properly don and doff the mask.
- Neptune technicians will sanitize personal protective equipment and tools after each use.
- We have altered our practices so that an owner/occupant is no longer required to provide a signature before work starts or after the work is complete. Alternatively, Neptune will ask you to take a thumbs up picture of an addressed envelope to confirm your address and satisfaction with the completed work.
- Neptune technicians will leave our emergency number at the meter should you have any questions or concerns after the installation.
- We ask that anyone with **any** signs or symptoms of illness notify Neptune prior to the technician's arrival and reschedule the appointment for a later date.

We thank you for your patience and appreciate your understanding during this challenging situation. Should you have any questions or concerns prior to booking your appointment, please feel free to call 1-800-667-4387.

Thank you,

A handwritten signature in black ink, appearing to read "Dave Oner".

Dave Oner, Director of Services

Managing Customer Concerns

Radio Frequency

Radiation (RFR)



Health Effects of Radio Frequency Based AMR/AMI Systems

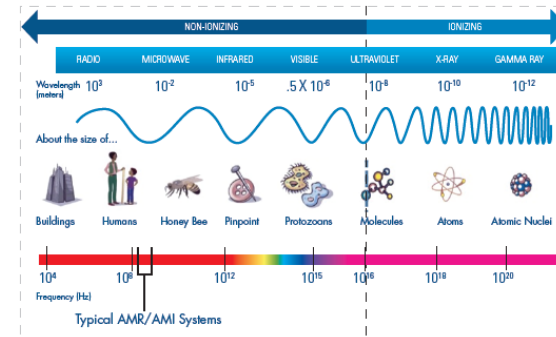
A WHITE PAPER BY NEPTUNE TECHNOLOGY GROUP INC.

Millions of radio frequency devices have been installed in North America to gather usage data from water, gas, and electric meters. Utilities of all sizes and types have realized the operational and customer service benefits of automating their data collection processes. But as the use of these systems has grown, some have raised questions over public safety. Have the health effects of these devices been adequately considered?

In this article, we'll address the issue of these health effects, and try to distinguish fact from fiction in the process.

BACKGROUND

First, we need to provide some background on the physics of radio frequency (RF) systems. For the purposes of brevity, we'll only hit



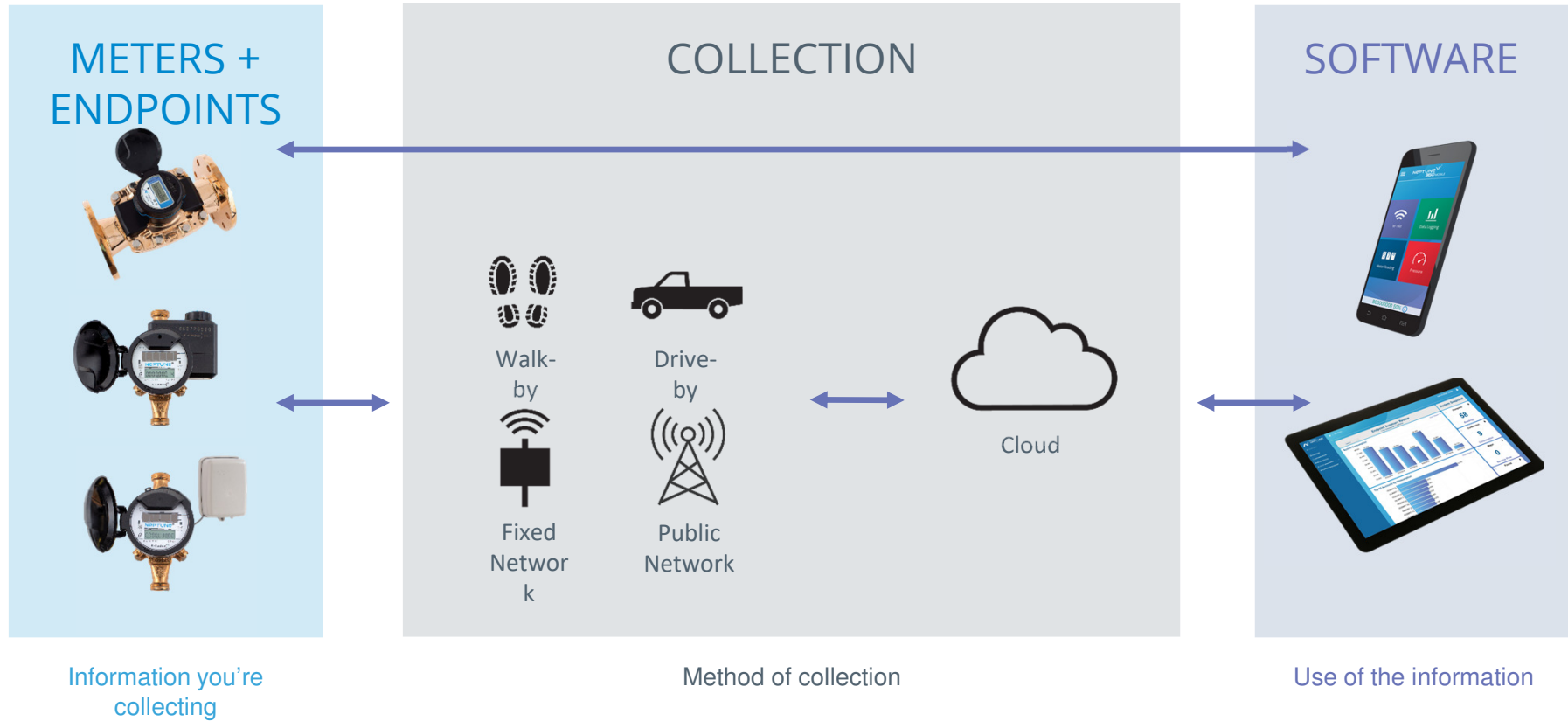
Frequencies are measured in Hertz and 1 Hertz = 1 cycle per second. We use metric prefixes kilo, mega, giga, and so on to designate multiples of 1 thousand, 1 million, and 1 billion Hertz respectively. So a device

two categories: ionizing radiation and non-ionizing radiation.

The EPA provides the following definitions:

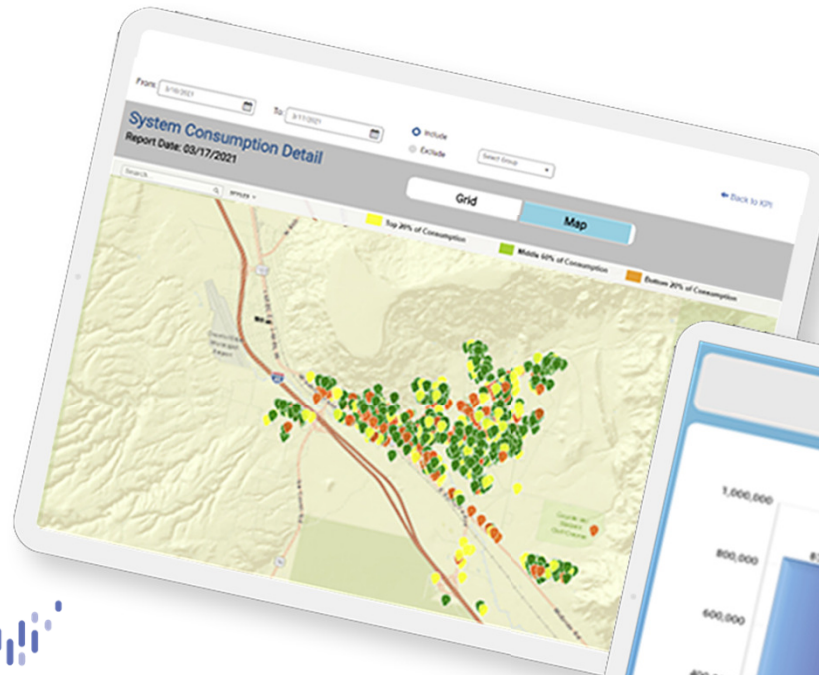
Radiation that has enough energy to

The AMI Solution



NEPTUNE 360™

Consumption data viewable graphically and geographically to understand when, where and how much water is being utilized to correlate with the data from your SCADA system to measure every drop



Providing a Higher Level of Service to Your Customers



Data at your fingertips – identify what happened with usage



Improved time to resolution – respond to issues faster



My360 Customer Portal

Benefits of a Portal

Self-service tool for consumers to view and manage data pertaining to water usage...

- Benefits
 - Improve consumers visibility and access to information
 - Reduce customer service calls
 - Improve Communication with Customers



Tips for Successful Change Management

- ✓ *Do your homework* -- Ensure that you are well informed and confident in the product and process before any change. Understand the current job responsibilities of the staff and the impact these changes will have on them.
- ✓ *Use outside help*. ... In our case this was Neptune
- ✓ *Create a detailed plan*. ...
- ✓ Keep your team informed at all times. ... *Consistent, clear communication* will avoid staff making assumptions and includes them in the planning. They will be more accepting of the changes if they have a say in the process.

Tips for Successful Change Management - Cont'd

- ✓ *Provide resources* – Training, By-law updates, written procedures, etc.
- ✓ *Prioritize* important tasks...
- ✓ *Give your team members the support they need...*
- ✓ *Take time for yourself*



Thank you!

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