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Attachments: 1. Technology Update for City Council 2021 06 01

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CITY COUNCIL AGENDA ITEM

ACTION REQUESTED:

Receive the June 2021 Information Technology Report (Item 1 of 2)

DEPARTMENT: Information Technology

SUBMITTED BY: Jacqueline Nguyen, Director

BOARD/COMMISSION REVIEW:

N/A

BACKGROUND:

This is the first in a series of periodic reports to the City Council regarding technology projects and implementation status. The reports will examine resources, priorities, schedules, and are intended to assist the City Council in making strategic technology decisions when necessary.

DISCUSSION:

Current Information Technology (IT) Department Work Distribution

The work performed by the IT Department supports all 13 City departments, Naper Settlement, and the City Council. The table below shows the different service areas and how department personnel are assigned:

Information Technology	
Database	2
GIS	3
Project/Program Management	3
Systems and Data Analysts	4
Networking/Security	5
Customer Service & Device Mgt	6
Reprographics / Mail	2
IT Public Safety	8
Business Operations	1
Director	1
TOTAL	35

IT Department Work Distribution

The department’s work can be categorized into three areas: Run, Grow, and Transform. This is an industry standard of IT work classification and is promulgated by Gartner, a leading IT market research and consulting firm.

The **Run** category focuses on everyday operations of the business. It maintains essential functions and capabilities that are in place and relied upon day-to-day. This category includes user support, cybersecurity and on-going maintenance, upgrades, and modernization of critical infrastructure and applications. IT staff spends approximately 70% of time in this category. Examples include:

Servers Software GIS Applications Networks Cybersecurity Database Devices Radios

The **Grow** category includes work that enhances or expands existing capabilities such as efforts to address growth in the scope of current City services as well as tools and processes. IT staff spends approximately 24% in this category. Examples include:

Enhance utility billing management Enhance permitting and electronic plan processing Enhance public safety technology (i.e., Next Generation 911) Optimize asset management, work order management for greater efficiency

The **Transform** category addresses completely new services, values, and drives new business capabilities. IT staff spends approximately 6% in this category. Examples include:

Implement body worn cameras Establish advanced data analytics capabilities

Technology Project Workload and Priorities

As staff seeks opportunities to improve technology operations and services, the project workload continues to grow. In order to maximize value with limited resources, projects must be categorized and prioritized.

As of January 2021, more than 40 projects, of all sizes and complexities, were identified for the IT Department:

- Top Priority Projects
 - Water AMI
 - Next Generation 911
 - Body Worn Cameras (State of Illinois mandate by January 1, 2023)
- High Priority Projects (20)
 - 12 to upgrade and modernize the infrastructure that other systems depend upon
- Other Priority Projects (21)

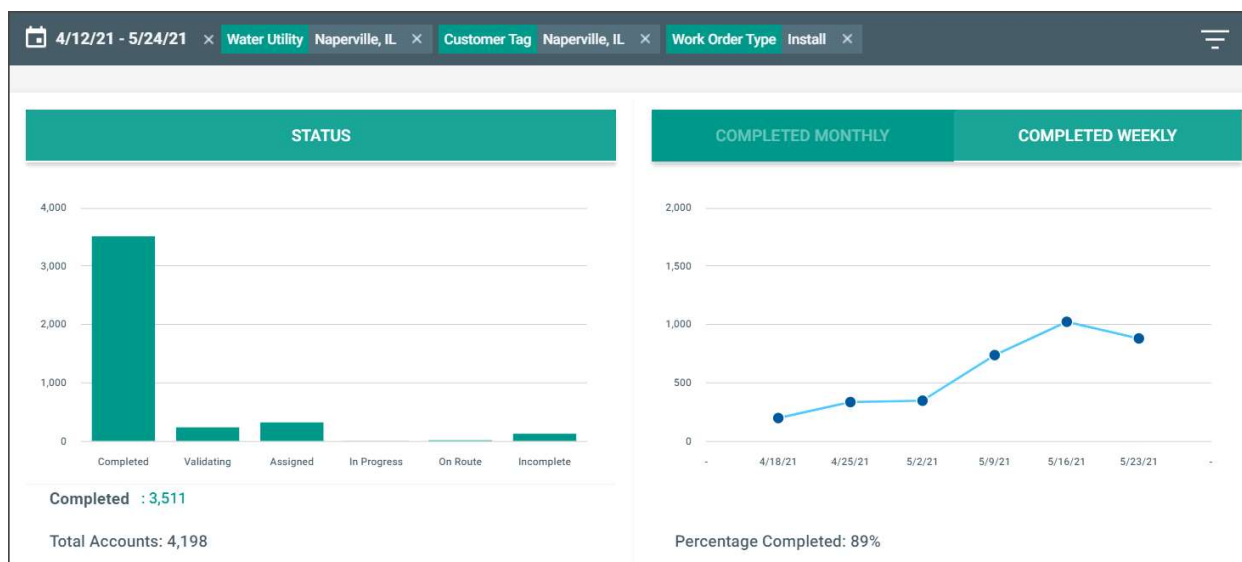
IT resources are focused on delivering projects and initiatives in the Top and High priority categories and staff works closely with all departments to continuously monitor and adjust the prioritization process.

Status of Top 2021 Technology Implementation Priorities

Water AMI

Mass deployment of AMI modules started April 12, 2021

- Installations being completed by Vepo Solutions
- As of May 21, Vepo has completed 3,511 successful installations
- Water Utility staff are following up on unsuccessful installations which are the result of bad wiring or meter incompatibility
- Integrations between Regional Network Interface and the Utility Billing system, Sungard, are working as designed and the Finance Department is successfully billing on accounts with completed installs
- Integrations between RNI, Sungard, and Harris Meter Data Management System, scheduled to be in place later this year, will allow for additional analysis of water usage and patterns. This will help staff and customers determine if a water leak may be present which could result in a high bill. Workflows can be set up to automatically notify a resident if a leak is detected.



Next Generation 911

Because most 911 systems were originally built using analog technologies, public safety answering points (PSAPs) across the country need to be upgraded to a digital or Internet Protocol (IP)-based 911 system, commonly referred to as Next Generation 911 (NG911). This is a faster, more resilient system that allows voice, photos, videos, and text messages to flow seamlessly from the public to the 911 network. The following is a list of completed work:

- 1/28/2021 - PSAP cut-over to use the new NG911 System
- 4/20/2021 - Deployment, testing complete, all major issues addressed.
- Key system enhancements including, but not limited to:
 - Interfaces with third party Computer Aided Dispatch (CAD)
 - Internal conference feature which allows multiple staff to dial into a conference bridge initiated on the fly
 - New, more reliable, and user friendly 911 call taker positions
 - Calls can be answered at primary PSAP or backup center without manual intervention.
 - Text-to-911 ready
 - Ready to integrate with the State of Illinois Emergency Services IP Network (ESINet) when it is available

The following is a list of planned upcoming capabilities and future possibilities

- 3Q 2021 - Text to 911: Residents will be able to text an emergency to our center in addition to calling.
- Future - Integration with the State of Illinois Emergency Services IP Network (ESINet); Estimated timeframe is unknown as the State of Illinois is still working on the ESINet

implementation.

- Future - Pictures and videos to 911; Estimated timeframe is unknown as standards are being worked and vendors implement technology.

Body Worn Cameras

The City of Naperville Police Department is required to implement the Body Worn Camera program by January 1, 2023 per the Illinois Law Enforcement Officer-Worn Body Camera Act.

In addition to the Police Department and its Records Division, the implementation of this project will involve staff from the IT, Legal, Communications, Finance, DPW-Building Operations, and Fire departments.

Staff from all affected departments have discussed, and is thoughtfully examining, several considerations in order to successfully implement the project, including but not limited to:

- Technology and associated components:
 - Battery life and recording storage for a 12-hour shift
 - High definition video resolution
 - Physical characteristics such as weight, body placement, ruggedness, and fault tolerance
 - Network bandwidth capacity (especially during shift changes)
 - Cloud-based long-term storage for a period >90 days
 - Reliability, security, performance, ease of maintenance and support
- Procedural:
 - User interfaces for officers, records and evidence staff, and Legal department personnel
 - Retention requirements including length of retention, destruction, security, and permissions
 - Redaction tools
 - Easy to use synchronization tools to combine timelines of multiple cameras
 - Indexing and searching videos by various attributes
 - Security/privacy/chain of custody/chain of command
 - Report generation
- Vendor capability:
 - Ability to support field trials
 - Integration with in-car camera systems
 - Integration with RMS/CAD Systems
 - Cost, warranty, maintenance, service and support

Project Resource Request

Since the project was approved staff has anticipated that one additional FTE in IT would be required in 2022 to support the program. The IT Department requests to accelerate the hiring of this position

to June 2021 in order to allow active engagement from the start of the program.

This position, titled Public Safety Network Administrator, will be dedicated to focus on the necessary technical planning and project preparation to ensure reduced risks, high quality, and on-time delivery. Specifically, this position will have the following responsibilities:

- Partner with the project team which includes representatives from the Police, Legal, Communications, Finance, Fire, and IT departments
- Plan, implement and maintain any network, storage, platform, security, and technical training required for the project
- Closely collaborate on the Police Patrol In-car Camera Replacement project (EOL 2022) which has high interdependencies with the body worn camera initiative

High-level Timeline

- 2Q 2021 - Planning
- 3Q 2021 - Hold vendor trials to evaluate overall performance of technology and gather operational and technology requirements for RFP
- 4Q 2021 - Execute RFP process
- 1Q 2022 - Vendor selection and contract negotiation
- 2Q 2022 - Implementation and acceptance testing
- 3Q 2022 - Training / Go-live
- 1/1/2023 - Implementation requirement deadline by the State of Illinois

FISCAL IMPACT:

The 2021 Annual Budget did not include funding for additional FTEs related to the Body Worn Camera program. It was assumed that these FTEs would be included in the 2022 budget request. The anticipated full-year cost of the requested Public Safety Network Administrator position, including salary and benefits, is \$121,106. Staff is confident that the partial year cost for this position can be absorbed within the 2021 budget because cost savings are usually realized throughout the year in certain areas. Should the partial-year costs exceed the total amount budgeted for 2021, staff would return to the City Council with a request to amend the budget accordingly.