Information Technology Department
2022-2023 Annual Report

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Introduction

The FY2023 budget year was a very challenging year for the IT Department, as you all know. May 7th, 2022, was a real awakening for the IT Department staff, all City of Quincy employees, as well as the citizens of the great city. The challenges that we were all put up against showed the true spirit of teamwork in the face of adversity, and that is something that every one of us should be extremely proud of, I know that I am.

This annual report will be a little bit different than other ones that you have seen, as it will be a combination of looking back at the last year, looking forward to the current year, as well as where we are with the recovery efforts from the cyber incident.

Background Information

The IT Department main purpose is to provide technology leadership for the City of Quincy, including governance, architecture, resources, and the required expertise to deploy modern information technologies to improve government efficiency.

The IT Department is responsible for the implementation and support of much of the technology infrastructure that makes city government run, telephones, radios, networks, desktop computers, laptop computers, virtual desktops, servers, data center, web site, building, information security, city wide infrastructure and the municipal cable television channel.

The IT Department currently consists of an IT Manager, an IT Senior Analyst, and an IT Support Specialist. We are currently in the process of hiring two additional positions for the department, a Network Administrator, and an IT Application Support Specialist. Both positions will be fully utilized and put to the test from day one.

The IT Department provides support for all city entities including Public Safety, Utilities, Central Services, and Quincy Regional Airport.

Fundamental Principles of Information Technology

In 1996, the City of Quincy recognized that Information Technology was serving an increasingly important role in the efficient and quality delivery of services to departments and citizens. Since that time, the IT Department has developed and refined fundamental processes that help guide all Information Technology projects and processes.

1. The IT Department's goal is to provide city employees, departments, and citizens with timely, convenient access to appropriate information and services using technology.

2. Business needs are what drives information technology solutions. Technology benefits of IT are leveraged to maximize the productivity of city employees and improve customer service.

3. Manage Information Technology as an investment.
   - *Annually allocate funds sufficient to replace systems and equipment before they reach end-of-life.*
   - *Look for cost-effective approaches to improve "legacy systems". This approach will help extend investments and system utility.*
   - *Re-evaluate technology yearly so that we can continue to provide the most efficient and cost-effective solutions for the city's environment.*
   - *Invest in education and training to ensure the technical staff understands and can apply current and future technologies.*

4. Ensure all technology solutions and policies adhere to Federal, State and Local security regulations and mandates. Some of these regulations include the Federal Information Security Management Act (FISMA), HIPPA Privacy Act, Red Flag Rule, NIST security guidelines, physical security guidelines for all city facilities, and employee identify theft regulations. The IT Department adheres to this basic information security guideline - ensure the confidentiality, integrity, and availability of all electronic data.

5. Implement modern, but proven, technology solutions. The IT Department will stay abreast of emerging trends through ongoing evaluations, seminars, and conferences. New technologies will be evaluated to test its business and cost benefits before adoption.

6. Provide a solid technology infrastructure as the fundamental building block of the City's IT architecture to support reliability, performance, and security of the City's information assets. Manage and maintain the City's network as an essential communication channel connecting people to information via modern server platforms and workstations.

7. Centralize all technology support within the IT Department to reduce costs and eliminate the need for city departments to hire or duplicate technology support staff. This centralized approach enhances the organizations efficiency by eliminating potential for "islands of information", promoting opportunity for data sharing between applications and departments, ensuring all technology solutions have the potential to be used and/or communicated between departments and solutions, and eliminate duplication of technology solutions and costs.

CITY OF QUINCY
Department of Information Technology

FY2022-2023 "Revisited"

Cyber Incident and Recovery Efforts

The Cyber Incident and the subsequent recovery efforts were undeniably the single most newsworthy event of FY2022-2023 for the IT Department, and not all of it was bad.

The Cyber Incident allowed the city and the IT Department the opportunity to implement technology and solutions that were always needed but were never moved forward with. These technology solutions have and will continue to make the City of Quincy's technology infrastructure more robust, increase the availability to users, and provides a much higher information security standard than what we had the capabilities to provide before.

Below is a list of the new technologies and solutions that were implemented during the previous FY:
1. Migration to Office 365 – cloud-based email solution.
2. Migration to cloud-based email filtering and archiving solutions.
3. Implementation of new perimeter firewall solution.
4. Implementation of Multifactor authentication solution for all users.
5. Implementation of new SAN (Storage Area Network) solution.
6. Implementation of new VMware Host Server infrastructure.
7. Implementation of approved PC and Laptop replacements.
8. Full rebuild of VMware server infrastructure environment.
9. Full rebuild of VMware desktop infrastructure environment.
10. Implementation of network micro segmentation to allow more security for critical network infrastructure devices, servers, and information.
11. Implementation of 3rd party resource monitoring and management.

The above list of improvements greatly increases our overall security posture and reduces our exposure to global threats. However, this is an ongoing battle to obtain and maintain these standards, which will be a continuing need every year moving forward. We have experienced the worst; we must continue the work that has now been started to make sure that we do not find ourselves in a similar position in the future.

What do we actually do all day?

The number one most often asked questions of IT professionals, *"what do you do all day?"* The more appropriate question may be, *"what don't we do all day?"*

For each employee in the department, both questions apply and are very accurate. We support the needs of the end users.

Here are some real-life examples:
- One thing may be that they can't get logged in to do their jobs.
- Another thing may be that their badge didn't work when they tried to come into the building.
- It may be that their computer won't turn on.
- Maybe we are having server issues.
- Someone from the outside called because they can't pay their water bill and we need to figure out why.
- Someone needs us to review an email that they received that seems phishy.
- Another person may have questions about how to do something in Microsoft Word.
- Someone else needs a new account created and an access control badge assigned for their new employee who starts in 3 days.
- Our Wi-Fi seems really slow at station 4 and we can't watch training videos.
- Our phone won't quit ringing.
- I need a Zoom meeting invite for a meeting that I am hosting.
- We need copies of emails to fulfill a FOIA request.
- A meeting notice and agenda needs to be posted on the website.
- The City Council Agenda Packet needs to be built and sent out.
- Why are we still having sound issues with the City Council meetings?

And the list goes on and on… Those are all real requests that we receive on a regular basis, plus tons more. Sometimes they may come in over a month, maybe a week, and on some occasions, we may receive all of those on the very same day. There is more than enough coming in just from requests to keep all the employees busy.

This list doesn't take into consideration the countless number of projects that we have that are vital to keep the infrastructure updated and secure, nor the resources that it takes for a project implementation like the Tyler project.

But we do what we do because we love technology, and we love helping people to fully utilize technology.

Business Process Analysis

One major "service" that the IT Department attempts to provide is working with departments to analyze their current business processes and try to help them by producing potential ways of creating efficiencies, lower costs or capture unrealized revenue. This process has served us well in the past when the IT Department focused on the utility billing and customer service process. The IT Department analyzed the daily operations of the three utility clerks from payment processing to utility billing to customer account interactions. This process allowed the Department of Utilities to implement new processes that should continue to provide a more efficient and improved experience for our customers.

This is a function of the department that we really want to expand on once we are adequately staffed with the workload spread out accordingly.

INFORMATION SECURITY

Information Security continues to be an issue for any technology department. The IT Department receives hundreds of emails each day regarding the dangers lurking around every corner of the Internet. While viruses, spyware, malware, and hackers were the biggest concern a few years ago, Ransomware has developed into the biggest concern for companies over the past few years, as we know all too well. Searching the Internet will produce many headlines where additional government agencies and public safety entities have paid hundreds of thousands of dollars, if not millions of dollars, to have their data released from Ransomware infections.

The IT Department must adhere to numerous federal and state regulations which call for the security of personal information and various data. The IT Department must follow security regulations including CJIS (Department of Justice), FISMA, HIPPA, Ill Identity Protection Act, Ill Social Security Act, Homeland Security Critical Infrastructure Act and PCI Compliance to name a few.

Due to these security concerns, the department spends several weeks to months evaluating new federal regulations and determining a new security strategy for the city's computer systems. While our past security approach had been adequate, it no longer meets federal guidelines nor protects the city from the new wave of cyber-attacks.

CITY OF QUINCY
Department of Information Technology

The IT Department continuously reviews numerous security strategies and products used by various governmental entities throughout the country. Based on the research and the new generation of cybercrimes, the IT Department has recently implemented the following security strategy approach to protect the city's computer systems.

1. Mandatory Security Awareness Training
2. Multi Factor Authentication
3. Implementation of next generation endpoint security
4. Implementation of next generation outer edge security
5. Implement Security Information & Event Management
6. Remote security vulnerability testing by the Department of Homeland Security
7. Remote systems vulnerability monitoring
8. Implementation of increased network security procedures for the protection of critical resources

As part of this security initiative, the State of Illinois has mandated employees to participate in an online security training program. The City of Quincy has already been performing these types of tests. During the initial training phase, realistic social media emails to city employees to understand the level of training necessary. During the next year, the IT Department plans to conduct additional security training events.

As in any industry, one of the biggest threats comes from within an organization. The Criminal Justice Information Service (CJIS) Security Policy continues to evolve and expand the security necessary to protect public safety data. The IT Department applies these same principles to all city data to ensure the confidentiality, integrity and access of all city data. The City of Quincy is also mandated to secure all personal information about our employees, like social security numbers, birth dates, medical information, drug testing information, personal records, etc. The City of Quincy is also mandated to secure information obtained from our residents for utility accounts, credit card payments, housing loan information, and bank accounts. Due to HIPPA and ADA regulations, security is required for all data associated with our para-transit employees.

FINANCIAL

Over the past twenty years, the IT Department has tried to implement various technology solutions that bring value and/or benefit to the city. Over the past couple of years, the IT Department has moved toward eliminating the burden for each department when it comes to technology repair, technology replacement/upgrades, and yearly maintenance costs. The IT Department has tried to absorb most of these expenses without increasing the budget.

The FY2024 adopted budget saw an overall increase of 58%, most of which are associated to the addition of two new employees and additional maintenance costs for newly implemented technology solutions.

CONCLUSION

The IT Department and the City of Quincy have experienced the worst that we ever care to see with the cyber incident and the associated recovery process. With two new employees joining the department, our goals are to continue to move forward in strengthening our overall security posture from a global perspective.

The Tyler Technologies Implementation project is back underway, and we hope to hit some additional aggressive timelines in getting that project back on track after being derailed during FY2023.

Our main goal is to continue to make things better for the employees of the City of Quincy and for the City of Quincy as a whole, that is the department's primary focus each and every day.

Thank you for your time in reading this. Feel free to reach out if you have any questions or if you would like to have a more in-depth discussion about any of these topics.

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