INFORMATION TECHNOLOGY DEPARTMENT

STRATEGIC PLAN

2017

Mission Statement

In partnership with other Village departments, the focus of Information Technology is to maintain core technologies, plan for technology evolution, promote centralized data management and reporting, consolidate business operations on standardized applications, provide effective communication tools, and enhance local area network (LAN) and mobile connectivity in the most efficient, team oriented, and fiscally responsible manner so that village residents, businesses, and visitors receive the best service possible.

Vision

- **Innovation**
  Leverage innovative leading-edge technology in every aspect of the organization.
- **Leadership**
  Lead the organization in the selection, implementation, and administration of technology.
- **Responsibility**
  Provide the best and most fiscally responsible technology and support possible.

Values and Guiding Principles

- Customer Service
- Teamwork
- Integrity
- Respect
- Trust

2017 Information Technology Strategic Plan

The Village of Schaumburg Information Technology Strategic Plan attempts to present the vision and role of technology for both internal and external customers of the village. The major activities of the Information Technology Department have been broken down into eight categories: Applications; Leadership and Staffing; Mobility; Customer Service; Training; Hardware; Networking; and Risk Management. The vision for the Information Technology Department is to become more efficient and effective while providing world-class customer service and continuing to be a strategic business partner for the entire organization.

A major area of focus will be to move towards a topology that increases efficiency and reduces costs by using virtualizing servers and virtual desktop infrastructure (VDI). By utilizing best of breed technology, the village will consolidate servers into virtual server farms that make better use of hardware, reduce costs, and centralize administration. Rather than providing traditional desktop computers for all users, a virtual desktop infrastructure will be used requiring thin or zero client devices. The efforts the village has put into converting key applications to cloud configurations can now be leveraged to move away from traditional client-server desktop computing. Most users do not need a full desktop any longer. VDI reduces cost and simplifies hardware and application administration.

SaaS (Software as a Service) has become a key component of the village's Information Technology strategy. We have made significant inroads in this area with many core village applications implemented in SaaS configuration. The village's enterprise resource application (MUNIS), Human Resources' core applications (Success Factors), and the village's email system (Microsoft Exchange) are all implemented in a SaaS configuration. The major investment in hardware and software has been transferred to the provider and all data and processing is housed and managed off site. This model of paying for usage rather than making a large capital investment will continue with other core applications where possible.

Mobility of both workers and our applications is critical. All new applications are being created with mobility at their core. Users expect to be able to access our applications from anywhere at any time. Mobile applications will be built using HTML5 or other browser-based languages, and will not be tied to a specific hardware platform.

In an effort to streamline support and maintenance resources, the village has standardized on HP branded server hardware and Dell laptops whenever possible. This standardization will allow Information Technology staff to sharpen their expertise around one manufacturer and one set of hardware. This will help load balance administration and maintenance tasks.

As the Information Technology Department has grown over the years, new technologies are continually brought into the environment. It becomes very challenging to keep all of the necessary skills in-house. To alleviate this limiting dynamic, the Information Technology Department will engage with 3rd party consultants to provide specific skill sets on a contract or temporary basis. The ability to call in resources as needed greatly increases the ability and effectiveness of the entire Information Technology staff. Village staff will continue to be organizational knowledge experts while leaving the detailed technical requirements to experts that can be allocated as needed.

Applications

Core Applications

Village operations have been consolidated into several core applications: MUNIS, Success Factors, Telestaff; Firehouse, Auto Process/Issue, FOIA Systems, Geographic Information System (GIS), custom .Net applications, Computer Aided Dispatch (CAD), and Police Records Management System (RMS). Each application is targeted to a core village function allowing the functional areas to benefit from a highly targeted and effective application. The data from the various applications is transferred back to the village's core ERP application (MUNIS) where applicable, to provide centralized data management and reporting.

Enterprise Resource Program (ERP)

An ERP system is the core set of applications or modules that every functional area of the village uses to manage day-to-day operations. Currently, the village uses MUNIS by Tyler Technologies. Tyler provides an application service provider (ASP) model where the application and backend database are hosted by Tyler in Maine.

Website (www.villageofschaumburg.com)

The village maintains a world-class website that provides a functional, efficient, and attractive public web presence. E-commerce or the ability for village customers to purchase permits and licenses, pay fees and utility charges online has been expanded. The website is ADA-compliant and built using responsive design concepts making it compatible with all smartphones and tablets.
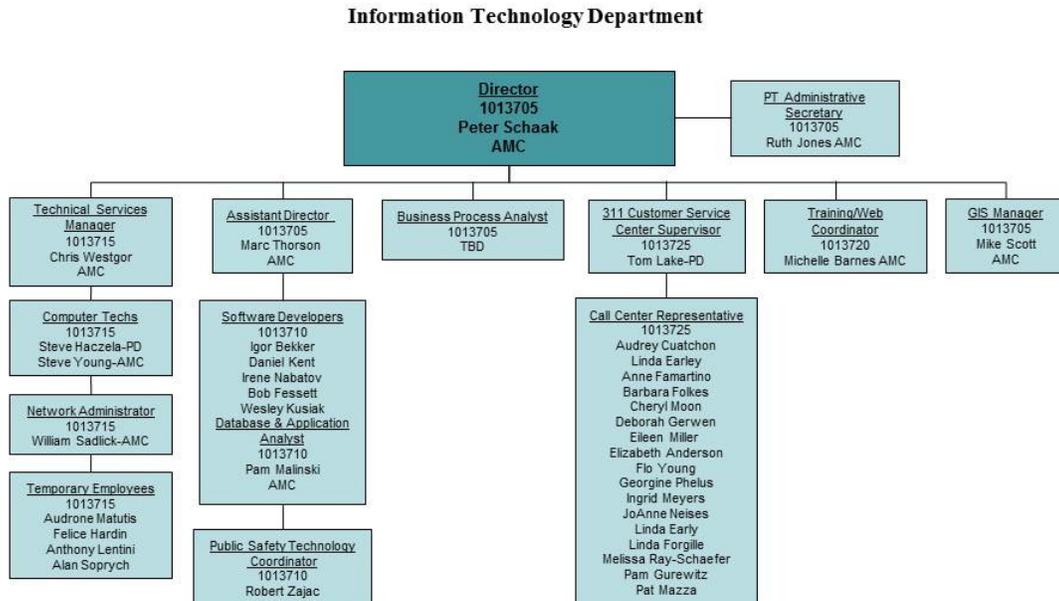
Centralized Data Management

Information Technology will continue to partner with functional areas to help migrate 3rd party applications into MUNIS. Where possible, data is created and maintain in MUNIS to promote and realize the benefits of centralized data storage. The village also maintains a data warehouse where data from 3rd party applications can be staged for use in other applications. The concept of a centralized database and resulting data warehouse are critical components of creating an improved operational and financial reporting capability. The ability to have visibility into all activities and functions of the organization improves management's decision making.

Leadership and Staffing

The IT department has begun shifting its focus away from custom and highly modified internally hosted applications to cloud-based software as a service (SaaS) products. MUNIS, Microsoft Exchange, Success Factors, Duncan Solution's AutoProcess/AutoIssue, and, FOIA Systems are already configured as SaaS applications. This model reduces the amount of application development and support required to provide applications to village users. The IT department has also begun using temporary employees to augment existing staff. Temporary employees allow the IT department to change skills sets as projects dictate. The IT Department has embraced the village's succession planning model and is working with the HR Department to identify and mentor future IT leaders.

Structure/Org chart

Information Technology Department

Director
1013705
Peter Schaak
AMC

PT Administrative Secretary
1013705
Ruth Jones AMC

Technical Services Manager
1013715
Chris Westgor
AMC

Assistant Director
1013705
Marc Thorson
AMC

Business Process Analyst
1013705
TBD

311 Customer Service Center Supervisor
1013725
Tom Lake-PD

Training/Web Coordinator
1013720
Michelle Barnes AMC

GIS Manager
1013705
Mike Scott
AMC

Computer Techs
1013715
Steve Haczela-PD
Steve Young-AMC

Software Developers
1013710
Igor Bekker
Daniel Kent
Irene Nabatov
Bob Fessett
Wesley Kusiak
Database & Application Analyst
1013710
Pam Malinski
AMC

Call Center Representative
1013725
Audrey Cuatchon
Linda Earley
Anne Famartino
Barbara Folkes
Cheryl Moon
Deborah Gerwen
Eileen Miller
Elizabeth Anderson
Flo Young
Georgine Phelus
Ingrid Meyers
JoAnne Neises
Linda Early
Linda Forgille
Melissa Ray-Schaefer
Pam Gurewitz
Pat Mazza

Network Administrator
1013715
William Sadlick-AMC

Temporary Employees
1013715
Audrone Matutis
Felice Hardin
Anthony Lentini
Alan Soprych

Public Safety Technology Coordinator
1013710
Robert Zajac

Growth and Additions

IT management will look to hire 3rd party consultants to provide project based resources on a contract basis. These 3rd parties will be used to augment existing staff for large projects, as well as to bring specific skill sets to bear as needed.

Mobility

Smartphones and other mobile devices such as tablets are widely used throughout the organization. HTML5 was chosen as the methodology to address mobile applications. Additional applications will be developed to take advantage of the always on, always available nature of mobile devices.

Customer Service

311/Customer Service Center

The 311/Customer Service Center's (311/CSC) main purpose is to disseminate information to village residents and visitors and to answer as many inquiries as possible before transferring callers to internal departments. A new custom 311 call tracking application has been developed to allow all 311 calls to be documented and tracked. The application is integrated with our Customer Service Request application allowing customer requests to be processed more quickly. A formal call review process has been implemented where random call samples are reviewed regularly to ensure high customer service standards are maintained.

Training

Training will continue to be a key initiative in order to increase employee efficiency, improve employee engagement and development, and bolster employee morale. E-Learning, which incorporates a blend of classroom and online training courses will be enhanced. It is an effective way to reach more employees, and allow training to fit into increasingly full schedules.

Hardware

VMWare

VMWare is a server virtualization technology that allows physical servers to be converted to virtual servers. Once virtualized, a single physical box can run multiple virtual servers. In simple terms, VMWare allows one computer to function like several computers. This consolidation significantly improves hardware utilization, energy consumption, and scalability. VMware will also be used to create a virtual desktop infrastructure to allow replacing of traditional desktop computers with thin or zero client devices.

Virtual Desktop Interface

The village has migrated many core applications to SaaS or cloud configurations. These migrations now open the door for desktop virtualization. The current model is to maintain a large server backend and place a full desktop computer on each user workstation. The cloud configuration changes this philosophy. Users no longer need a standard desktop. All of their applications are accessed via web browser. Desktop computers can be replaced by thin or zero client devices which are little more than web browsing machines. Thin clients are solid state devices with no moving pieces resulting in increased durability compared to standard desktop computers. Virtual desktops also greatly reduce administration for IT staff. Application updates and fixes are applied to the back-end servers and are then pushed to all virtual clients. This eliminates the need to physically touch each device. If a thin client fails, it is a simple process to restore the device to factory specs. This eliminates the often lengthy desktop computer repair process. The intention is to convert the majority of village users to virtual desktops in the next three years.

Hardware Standardization

The village has standardized its hardware platform on HP servers and Dell laptops. All purchases and bids will specify HP or Dell as the preferred brand.

Server Room Reconfiguration

The village server rooms will be reconfigured to use rack mounted hardware. As current servers are retired and replaced, new servers will be rack mounted devices. Implementing a rack mounted configuration will improve physical space utilization and improve cooling and power requirements.

Replacement Fund

The village maintains a replacement fund with adequate funding to smooth out the inherent peaks and valleys of year-to-year purchases to maintain village technology hardware. The Information Technology department will continue to manage this fund closely to ensure it remains sufficiently funded in future years while meeting the technology replacement priorities. The condition and performance of current systems will be evaluated each year resulting in a recommendation of when and what to replace. The recommendation will provide details on what will need to be

replaced in the upcoming fiscal year, as well as 5 outlying years. IT will work with Finance to base replacement costs and schedules on depreciation for high-value items. Depreciation will drive the replacement schedule. The village does maintain a total listing of all its assets with corresponding end-of-life dates for replacement. Historically and practically, these end-of-life dates do not force automatic replacement and it has been the practice and procedure of the village to replace equipment when necessary; thus, extending the equipment benefit to the village.

Networking

Network Security
New spam, virus, and spyware blocking devices will be implemented as needed in order to maintain the best possible level of security. The village will continue to utilize best-of-breed Cisco devices for its core network infrastructure. Devices will be replaced and upgraded as needed.

Active Directory
In an effort to better align the organization's structure with Microsoft's Active Directory security protocols, Information Technology will be reconfiguring internal security groups, organizational units, and access rights to maintain the highest level of security and functionality.

Connectivity Redundancy
The village has implemented an eMPLS cable internet connection for all primary sites to supplement its current internet connections. The eMPLS topology will provide redundant internet connections to all key village facilities.

Bandwidth
The village operates a robust network infrastructure with all desktops utilizing a minimum of 100 megabits. These devices are connected via a core Cisco switch utilizing a gigabit backbone. Accessing bandwidth outside of the village is done utilizing an AT&T connection through Illinois Century Network and eMPLS from Comcast.

WIFI
An enterprise WIFI system has been implemented. The system provides both public and internal WIFI access in all key village buildings and areas. The system provides a professional access portal for visitors and guests, as well as stable coverage in all key areas.

Risk Management

Backup Policy and Procedures
The Information Technology Department will transition to a robust disk-disk-disk-to-tape (D-D-D-T) backup methodology. Redundant storage area network (SAN) devices have been implemented along with an advanced robotic tape library to provide redundant storage and backup functionality. This configuration increases the redundancy and recoverability of critical village data.

Web Applications
Many of our web accessible applications are hosted on our internal VOS network. Public users utilizing the public network are allowed through our network firewalls and are given access directly to an internal server. New and existing applications will be converted to external web hosting providers. Public users only access the web hosting infrastructure, and are never on our internal network. This will eliminate this significant security concern. Additionally, a network DMZ has been configured and implemented to provide a secure method for delivering custom web application. External facing web sites are placed in the DMZ with no external traffic passed through to the village's internal network

Conclusion

The village of Schaumburg is committed to creating and maintaining best-practice technology systems in an effort to maximize the value to our internal users and external customers. Information Technology staff understand and respect the trust the public has placed in the village, and by extension, the Information Technology department.