2005 - 2006
INFORMATION SERVICES DEPARTMENT
ANNUAL REPORT

Introduction

The City of Midland Information Services Department is pleased to report on this year's accomplishments and progress made toward citywide computer automation, as well as the future projects that will continue to enhance the city's productivity and efficiency. This report will summarize the projects and activities that have occurred throughout the year and provide a glimpse into future technology projects.

The primary function of the Information Services Department is to provide assistance with the computerization efforts that support all other departments in the City. The result of this computer automation is an improvement in the productivity and accuracy of routine tasks and assistance in controlling and reducing operating costs. Fast availability to tremendous amounts of information stored on City servers is critical to the duties assigned to many employees.

Computer support is provided to personnel in fifteen building locations throughout the City. The City's web site is available to all citizens or other interested parties around the world. Information Services staff members are on call around the clock to provide computer access 24 hours a day, every day of the year.

Departmental Activity

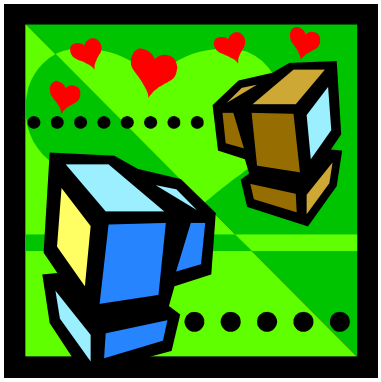
There are six technology platforms which the City of Midland personnel rely on for automation and electronic communication. The first is an IBM iSeries Model 270 minicomputer. This system stores the software and processes the data related to the financial, utility, parcel, and public safety needs of the City. The second platform consists of the file servers that handle e-mail, calendar, voicemail, web, and other systems. These servers also provide file storage for all employees' word processing documents, spreadsheet files, and other documents. The third platform consists of the personal computers that are installed on the desks of many employees. The Microsoft Office suite is installed on every desktop PC to provide convenient access to word processing and spreadsheet applications. Microsoft Exchange/Outlook is used for calendaring and e-mail functions and provides for internal and external communications. The fourth platform consists of the network infrastructure which connects all City facilities to centralized server and telephone resources. The fifth platform consists of the Avaya telephone systems installed in most major City facilities. The integrated phone systems provide for consistent features, centralized voicemail, four-digit dialing between employees, and aggregated telephone service. The final platform is the Geographic Information System (GIS). GIS allows information such as floodplain locations, or all commercial zoned properties in the city to be displayed in an easy to read graphical format on a computer.

All PC's are routinely replaced under a four-year replacement plan. This year, 40 out of approximately 290 total PC's were replaced. This was accomplished with minimal disruption of normal PC user activities. This replacement process allows the City to keep up to date with the latest versions of the PC operating systems and assists with keeping each device secure.

For the last few years, Information Services has been using VMWare "virtual machine" technology to allow a single server to be partitioned and used for multiple applications, which reduces the total number of servers required. VMWare allows each application to run under its own operating environment and reduces the chance of an application failure taking an entire server offline. Server resources such as disk, memory, and processor are more fully utilized.

The City of Midland's web server is maintained in-house. The hardware is managed by Information Services, and web content is coordinated by the City Manager's office. Due to its age, the hardware was scheduled for replacement. By utilizing virtual machine technology, the website was moved to an existing server which eliminated the need to purchase new hardware.

Because of the ever increasing amount of data that must be protected against loss, the City's tape backup systems were quickly becoming overwhelmed due to limited capacity and slow backup times. For this reason, a new Disk-to-Disk-to-Tape (D2D2T) backup system was purchased. Backups are now stored on high capacity hard drives on a daily basis and are automatically offloaded to tape once per week. This system has significantly reduced backup times and provides plenty of storage capacity for the foreseeable future.



Information Services personnel allocated considerable resources to maintaining existing equipment, software, and infrastructure. The activities involve a number of different tasks such as working through program bugs, answering user questions about software functionality, software enhancements, hardware maintenance, training, etc. Many of these activities are related to the HTE modules. The modules currently installed are:

Application Tracking
Accounts Receivable
Business (Occupational) Licenses
Building Permits
Code Enforcement
Crimes Management System
Fires Management System
Fixed Assets
Fleet Management
General Ledger (including Cash Receipts, Budgeting, Global Financials)
Human Resources
Land / Parcel Management
Loans / Special Assessments
Parking Tickets
Payroll / Personnel / Pension Payroll
Planning and Zoning
Purchasing / Inventory
Tax Billing
Utility Billing / Customer Information
Work Orders / Facilities Management

The HTE Human Resources module that addresses the needs of Human Resource Departments and integrates with the existing Payroll module was purchased, installed, and all users were trained.

The DMS (Document Management Services) product from HTE, which makes it easier for HTE users to automatically merge the name/address and other information directly into Microsoft Word form letters, was installed and implemented this year.

It is very important to keep users up to date on the status of technology projects, new technology, and computer security issues. This was accomplished through Spring and Fall newsletters that were sent to all computer users. The newsletters address common user questions and

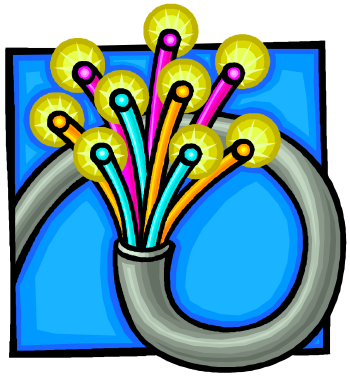
problems, as well as informing users about issues such as computer security. While the Fall newsletter contained a broad range of topics, the Spring newsletter focused exclusively on the City's GIS initiative.

With approval of the 2005/2006 budget, City of Midland staff has initiated a three-year phased implementation plan to create an integrated, enterprise-wide Geographic Information Systems (GIS) program. A GIS Committee consisting of the GIS Manager and key department personnel prepared a detailed implementation plan and proposed a GIS budget for hardware/software resources, data development, training, and planning. During the first year of implementation, the majority of the GIS resources were dedicated to the development of a citywide base map and sanitary sewer utilities infrastructure. This labor and time intensive task will lay the foundation for the strength of the GIS program into the future. In cooperation with Midland County, the city acquired aerial photography in electronic format. Additional resources were used for GIS software/hardware procurement, implementation, and integration to support citywide GIS use. This implementation strategy has put the City of Midland on course to address the sewer modeling priority.

City Councilmen, realtors, and employees working at home are provided with various methods of connecting to the City's computer network. The ability to connect is provided via an Internet service provider. Every effort is made to implement security measures to prevent unwanted users from accessing or using the City network or computer resources. Assessing computer security vulnerabilities and keeping up to date with security issues is an ongoing task every year.

In terms of routine PC security and maintenance, there are a number of software applications and processes that are routinely handled. First, all PC's are updated daily with antivirus definitions. Anti-spyware software has also been deployed. Fixes from Microsoft for the operating system and office suite are downloaded and automatically installed as needed. Finally, anti-spam software is in place which greatly reduces the amount of useless email employees receive.

It is important for new employees coming into the City be setup and trained on the network, telephone system, voicemail system, etc. To assist with these tasks, the City's Technology Team developed a training program for new users. In coordination with the Information Services staff, trainers walk employees through all of the setup tasks they must perform, as well as review the documentation for the software that they will be using. The trainers utilize the new user training guide that was previously developed by Information Services.



The amount of data transmitted over the citywide network continues to grow and faster transmission speed is essential. Three years ago, the City joined a consortium known as M.Co.Net that includes the Midland County Educational Service Agency (MCESA) and Midland County, in order to build a county-wide fiber network. The fiber and related electronics installation has been completed and City facilities are now connected to the new network. This provides high speed communications for internal use as well as the ability for future connections to other consortium members to share information and resources. Servers that were required at several facilities can now be decommissioned and the file/printer resources moved to a central location. This will reduce administration time and eliminate the need to purchase new server hardware.

Implementation of a document imaging system began this year. This technology greatly reduces the amount of paper that needs to be filed on a long term basis and can save time and money by making the storage and retrieval of documents more effective. This year, a very extensive request for proposal (RFP) was written and sent to over thirty vendors. OptiView, from Advanced Processing & Imaging, Inc., was selected as the best suited product for our needs. We implemented this technology in three departments that volunteered to serve as our pioneers: Assessor's Office, Clerk's Office, and the Police Department.

Several frequently used documents from each department were targeted and successfully processed for digital imaging. Now that the technology has been tested and proven effective, we will roll it out to all other departments, beginning with the Planning Department. It will likely take several years to implement this technology citywide

Wireless access points were installed at the Library in order to provide Internet access to patrons with wirelessly enabled notebook PC's. Coverage is limited to common areas within the building, but will be expanded in the near future.

In addition to new projects, there are a great number of recurring tasks performed by the Information Services Department. Some of these services include:

- Backing up data citywide.
- Setting up security for new users and assuring the network is secure.
- Responding to user questions and problems with hardware and software.
- Keeping all computers operational.
- Installing new software and operating system releases.

A GIS Manager and GIS Technician were added to the Information Services staff this year, and an Assistant Director vacancy was filled. As of year end, the breakdown of the nine positions in the department is as follows:

1 Director
2 Assistant Directors
1 GIS Manager
1 GIS Technician
1 Software/Communications Specialist
1 Software Specialist
1 PC Technical Coordinator
1 Programmer II

Future Direction

The one thing that can always be counted on related to implementation of technology is that change is inevitable. There are always new tools being developed that can be implemented to continue to improve the efficiency of City personnel. It is definitely a challenge to identify the right time to begin implementing new products and to make a smooth transition to new technologies.

The Information Services Department continues to undertake many different hardware and software initiatives designed to position the City well for future technology enhancements. The goal is to show continued progress by building upon previously implemented hardware and software. The proper hardware and data communication infrastructure is critical to the success of the software that must run over it. New technology initiatives require a significant investment in hardware, software, and personnel training, but the rewards gained much more than offset the cost.

Short Term Direction

- Over the last year the Information Services department has been working with key City departments to implement a citywide GIS program. As part of that effort, an Intranet GIS application called LGweb is planned for implementation in 2006. LGweb provides GIS access to all City staff via the Intranet and integrates the City's HTE database with GIS. Additional custom GIS applications are planned for the Police and Fire departments.
- Continuous work is being done to attempt to improve the level of security on the computer network and protect against virus attacks.
- Fiber construction to the new Civic Arena is in progress, with completion expected by September 2006.
- Cities and states throughout the country have been successfully rolling out Internet-based services to their citizens at an increasing rate. The value and appeal of these services have been demonstrated time and again. The City of Midland receives requests for this type of service regularly. The City Treasurer has sponsored a proposal to implement an online utility account information and payment service. This would allow citizens to sign-on to the City's website and view their utility accounts, as well as make payments on any outstanding balances. The software being considered for this proposed service is an HTE product called Click2Gov.

Long Term Direction

- Related to document imaging, another great method to improve overall organization efficiency is the implementation of workflow and content management. One primary purpose of this technology is the elimination of paper documents that flow from department to department. All of these "forms" are electronically generated and routed through the computer network to the next department(s) in the process. For certain types of jobs, this can shorten cycle time by days and reduce clerical costs significantly by greatly curtailing filing, retrieving, and copying. API, our document imaging system provider will release a workflow module in 2007 that we plan to deploy.
- With the complexity of computer automation implementation efforts in the future, developing and refining project management techniques will be an ongoing goal.
- Three different versions of Microsoft Office are deployed on staff PC's. These versions are compatible with each other and have a similar look and feel. With the upcoming release of Microsoft Office 2007 we expect major feature and interface changes in the applications, and document compatibility could become an issue. This may dictate a citywide replacement of the Microsoft Office suite. Evaluation of the new version will begin in 2007.
- Knowledge management has been a tool that many organizations have started to implement. Use of this technology will allow new employees to be trained much faster since the knowledge of existing employees will be documented and readily available. Currently, no date has been established for this project.
- Replacement of obsolete hardware and software is an ongoing task.
- The increasing popularity of open source software that can replace Microsoft's Windows and Microsoft Office (e.g. Linux and OpenOffice) has caused Information Services to begin testing of these applications. No decisions have been made as to a future plan at this time. Issues such as overall features, ease of use, and long term cost savings need to be completely evaluated.
- As staff becomes trained and familiarized with GIS technology, the City may focus efforts on making a GIS presence on the City's web site by implementing an Internet mapping service. The Internet Mapping Service provides public access to GIS data via the Internet. This easy to use interface will enhance public service by providing residents with access to GIS data. This will improve efficiency and productivity enabling the public to find answers for themselves and reduce the amount of daily calls taken by staff.

- Both the Imaging and GIS software implementations will require a significant investment of Information Services staff time and a number of years to reach a point where the mode is more of maintenance rather than installation/implementation.

Conclusion

Overall, this has been a very successful year related to the implementation of computer technology. There are many exciting and challenging opportunities currently in progress and planned for the future. Achievement of success can only be accomplished through careful planning and coordination between all departments. The future provides great promise for the advancement of computer automation in the City of Midland.