

**2003 - 2004
INFORMATION SERVICES DEPARTMENT
ANNUAL REPORT**



It's time to share a "bit" of information about what we've been up to over the last year.

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. The purpose of this report is to summarize the projects and activities that have occurred throughout the year and provide a glimpse as to what future technology projects have in store.

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.

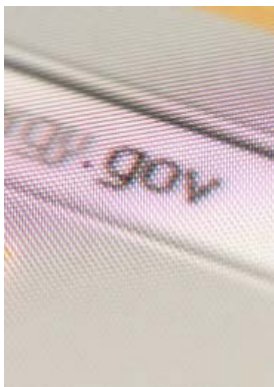
Computer support is provided to personnel in fifteen building locations throughout the City. The City's web site is available to all citizens or other interested parties around the world. Information Services staff members are on call around the clock to provide computer access 24 hours a day, every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



Departmental Activity

There are three hardware platforms upon which the City of Midland personnel rely on for automation and electronic communication. The first is an IBM iSeries Model 270 minicomputer. This system is critical to the overall needs of the City because it stores the software and processes the data related to all financial, utility, parcel, and public safety needs of the City. The second hardware platform consists of the file servers that handle the e-mail, calendar, voicemail, web, and other systems. These servers also provide file storage for all employees word processing, spreadsheet files, and other documents. The final hardware 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.

All PC's are routinely replaced under a four-year replacement plan. This year, 120 out of approximately 275 total PC's were replaced. This was accomplished with minimal disruption of normal PC user activities. Due to the large number of PC's replaced, a significant amount of staff time was dedicated to this project.



The City of Midland's web server is maintained in house. The hardware is managed by Information Services and content is coordinated by the City Manager's office. There were no significant hardware or software changes required to the web server this year.

There were no changes made to the primary file servers used for email and file storage this year. However, the addition of a new voicemail system that is tightly integrated to Microsoft Exchange has caused performance issues. Replacement of our primary file servers is scheduled for next year, with all of the preliminary research for our requirements being completed this year.

This year, the existing voicemail system was replaced because of its age, lack of support, and desirable features that were missing from the product. The new voicemail system integrates with the Avaya PBX's and Microsoft Exchange.

Because of this, all users now have the ability to see voicemail messages in their Outlook Inbox and listen to them using the telephone or PC speakers. The deployment went well and all users have been trained and adjusted to the new system quite easily.

In terms of labor time, the Information Services personnel allocated the most resources with support activities related to the HTE modules that went live in the prior years. The activities involve a number of different tasks such as working through program bugs, user questions about software functionality, software enhancements, etc. The modules currently installed are as follows:

- Module
- General Ledger
- Purchasing/Inventory
- Fleet Management
- Payroll/Personnel
- Work Orders/Facilities Management
- Accounts Receivable
- Land/Parcel Management
- Parking Tickets
- Loans/Special Assessments
- Tax Billing
- Fixed Assets
- Business (Occupational) Licenses
- Building Permits
- Planning and Zoning
- Fires Management System
- Crimes Management System
- Code Enforcement
- Utility Billing



A contract currently exists with Sungard for computer disaster recovery services. In the event of a disaster, Sungard will be contacted to provide the required computer equipment to keep the City operational. This year, the disaster recovery plan was tested for the first time. Both iSeries and network data was successfully restored to Sungard's hardware, which provides confidence that computer operation can continue in the event a disaster strikes.

It is very important to keep users up to date on the status of technology projects being implemented, new technology, and computer security issues. This was accomplished through a newsletter that was sent to all employees, which was a change to the user education method used in prior years. Previously, small instructor led training sessions in groups of four proved to be very successful in educating users. However, because of an Information Services staff reduction in a prior year and changing needs for user training, this was the first year that a technology newsletter was distributed for user education. The newsletter addresses common user questions and problems as well as informing users about issues such as computer security. Overall, this seems to be an effective and cost efficient method of keeping users up to date with technology.



Councilmembers, realtors, and employees working at home are provided with various methods of connecting to the City's computer network outside City buildings. The ability to connect is provided via an Internet service provider or a telephone dial up connection. Every effort is made to implement security measures that will not allow unwanted users to access or use the City network or computer resources. Assessing computer security vulnerabilities and keeping up to date with security issues is an ongoing task every year.

When City Hall was constructed in the late 1980's, the building was wired for Token Ring connections instead of Ethernet. At the time, both standards were competing with each other for a dominant position in the market. As time has passed, Token Ring has virtually disappeared and the wiring installed has placed severe limitations on the speed at which PC's can connect to the network. Because of this, City Hall was recabled this year to allow faster network connections using Ethernet.

New technology seems to continuously expand into more areas. This year, the availability of multifunction devices that replace traditional copy machines was a technology that was evaluated. Multifunction devices provide the ability to scan and save documents to an electronic file, fax, and print from the network in addition to making copies. Because the technology made sense for the City's needs, five copy machines were replaced this year with multifunction devices. Instead of being the responsibility of a building manager, the multifunction devices are the responsibility of Information Services to maintain.

Implementation of a document imaging system has been a goal for many years. This technology greatly reduces the amount of paper that needs to be filed on a long term basis and will most likely be implemented on a small scale initially and expanded as time and resources permit. One of the reasons this project hasn't been pursued is due to inadequate network performance between buildings. With the fiber network installation (reviewed later in the Future Direction section of this document) getting closer, the imaging project received some attention this year. Each department has assigned a sponsor that will be the primary point of contact and a brief orientation session was conducted. In addition, a survey was distributed to gather information about the volume of data that will eventually need to be stored as part of the system. The next step, which will be completed next year, is to issue an RFP and select a product.



When the contract with HTE was negotiated in 1997, the City inserted a clause that indicated HTE would provide a client/server version of their software when the development for this product was complete. HTE has since implemented a new version of their software with a graphical web interface known as NaviLine and has agreed to honor our contract and provide this interface at no charge. The total value of this software at the list price is over \$100,000. The software has been installed in a test environment and progress is being made to deploy NaviLine to all users. The result for users will be an interface to the HTE data that has much more of a Windows look and feel.

Some research has been done to determine the technical requirements of allowing online web and credit card payments. As of year end, this project is awaiting a user sponsor to assist with direction and implementation. This project is quite complex when taking into consideration all of the aspects of integration with existing modules, security issues, and the number of alternative methods of achieving the same end results.

As everyone is aware, spam is a universal problem and employee time waster. The implementation of a spam reduction software tool began last year and continued into this year. Ongoing efforts are being made to minimize the time employees spend related to spam.

Several projects were undertaken to assist with improving the efficiency and effectiveness of duties performed by staff of the Information Services Department. First, was setting up automatic deployment of patches for Windows PC's. This saves staff time by not requiring a staff member to visit each PC and enhances security since PC's are up to date with security patches. We also started taking advantage of a new feature provided in Microsoft's latest Windows release that allows for administration of PCs remotely. An Information Services staff member can now take remote control of an employee's PC that is experiencing problems and diagnose and fix the issue without leaving their desk. For licensing and support purposes, Information Services keeps an inventory of all hardware and software in the City. This

data was migrated from multiple Excel spreadsheets into a single Access database. This has reduced the amount of time required for data maintenance and enhanced ability to analyze the data.

This year, the Information Services staff dedicated a significant amount of time creating a comprehensive document covering technology information that new employees need to know. This includes topics such as signing on for the first time, application setup tasks all new users need to do, basic email training, voicemail training, etc. By reviewing this document, new employees will become productive much faster and most of the information can be learned without instruction from other employees.

Part of the employee technology training relates to assisting new users with the HTE software and refresher training for existing users. Depending on need and budget, Information Services staff arranges for a number of HTE telephone training conferences and on site visits by HTE staff. These sessions are critical to assure that software applications are being used in the most efficient manner.

Printing color documents has become more and more popular. Up to this point, many users have inexpensive printers on their desk that are capable of color printing at a very slow pace, but color laser printers have not been widespread throughout the City. At year end, because of recent price reductions in color laser technology, evaluation was underway to determine if future printer replacements would be made with color laser printers.

To go along with the anticipated installation of fiber between buildings, replacement of existing network equipment will be necessary. This replacement will allow the City to take advantage of the increased bandwidth possible by transmitting data over fiber. Bids for this hardware had been received by M.Co.Net and were under evaluation at year end. A substantial amount of time and research was expended in order to assure the best solution would be selected.

Over the course of the year, users submit requests to improve existing systems, purchase additional systems, or develop new automated systems. The overall goal is to prioritize development requests in a manner that improves the efficiency and accuracy in which all departments operate. Some of these requests are submitted to meet the ever-changing legal requirements made by outside government agencies. Many others are submitted to enhance methods of operation, provide better data for decision-making, etc. All requests are evaluated to determine if there is an adequate return on investment. If so, these projects are worked on as staff time is available. As with most purchased software, not every feature and function users would like to have is included in the HTE software. Software requests and enhancements related to HTE fall under two categories. Those of an urgent nature are addressed by the Information Services staff. Those that are not urgent are submitted to HTE as a development request. New versions of their product are based on suggestions and a voting process that is conducted with over

1600 user organizations. This year, as in prior years, requests related to HTE enhancements were compiled and submitted to HTE for voting.



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 releases.

There were no changes in the Information Services staff this year. As of year end, the breakdown of the seven positions in the department is as follows:

- 1 Director
- 2 Assistant Directors
- 1 Software/Communications Specialist
- 1 Software Specialist
- 1 PC Technical Coordinator
- 1 Programmer II

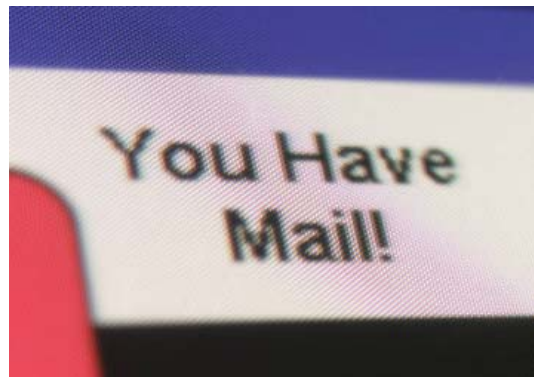
Future Direction

The one thing that can always be counted on related to implementation of technology is that change is continuous. 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 when the time is right 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.

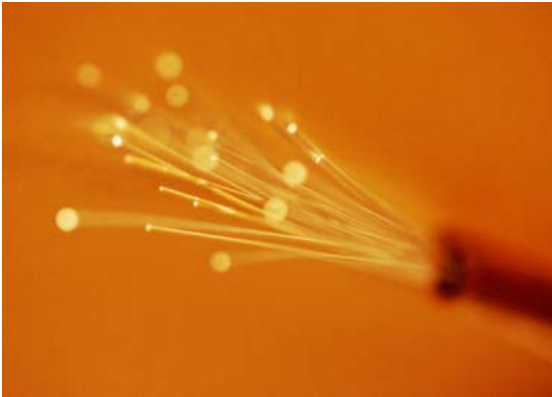
Short Term Direction

- Since the implementation of the HTE software is complete, nearly every module needs to be revisited to evaluate processes and procedures that may be desirable to change in order to continue to improve efficiency in each department. There are also a number of additional modules that HTE has available that need to be evaluated in order to determine if their implementation would provide an adequate return on investment. These include modules for processes such as conducting business online or reporting inspection results while in the field.
- Making data more easily accessible to users for analysis is a goal within most organizations. There are many tools on the market to do this, but finding a tool that is not expensive, not complex, and fits well into the existing software can be a difficult task. Research and implementation of such tools will be an ongoing task.
- Many other cities have already implemented a geographic information system (GIS). This technology allows users to visually see data on a map, and is one of the few areas related to technology where we are behind in our effort compared to other cities our size.



There are almost endless possibilities for uses of this tool, especially when sorting and viewing data for decision-making purposes. It is likely that there would be many outside agencies that could make use of the City's GIS data and likewise, provide data that would be of great benefit. A GIS committee representing various City departments has been meeting for over two years to lay the groundwork on this project. Last year, a bid was released to select a consulting company that would be hired to put together a complete implementation plan. This year, Geographic Technologies Group (GTG) was contracted to put together an implementation plan specific to our needs and outline all tasks that need to occur over the next few years. The total scope of the implementation will be extremely large and complex and is likely to continue for many years. As of year end, the implementation plan was nearly complete; however, City Council delayed funding for the implementation until 2005.

- The amount of data transmitted over the citywide network continues to grow. Upgrades to the telephone lines and some of the network equipment with higher speed hardware have become a necessity. Funds have been budgeted to begin work on this task. The ideal way to accomplish implementation of a high speed network that can connect all City buildings is through the installation of fiber. Last year, the City joined a consortium known as M.Co.Net that includes the Midland County Educational Service Agency (MCESA) and Midland County that began a project to build a county-wide



fiber network. This network will provide high speed communications for internal use as well as the ability for connecting to each other to share information and resources. A funding request was submitted and approved by local foundations since this project will provide county-wide benefits. This funding will provide for the installation of the fiber between City buildings. City funds have been budgeted to purchase the electronic equipment to begin using the fiber. Implementation of fiber will significantly reduce long term telecommunication costs and provide the necessary bandwidth for the previously mentioned imaging and GIS projects. As of year

end, the contract to construct the fiber network was awarded and preliminary construction between the street and buildings was completed. The actual installation of the fiber has not yet started due to delays in Consumers Energy conducting the make ready assessment. The City's portion of the fiber network was anticipated to go live by June 2004 had Consumers Energy completed the make ready assessment on a timely basis. Each month of delay costs the City several thousand dollars of unrecoverable expenses for SBC telephone lines. As previously mentioned, implementation of the fiber network will also require replacement of existing communications hardware.

- Continuous work is being done to attempt to improve the level of security on the computer network and protect against virus attacks.
- The technology currently being used to print Accounts Payable and Payroll checks has been suffering problems due to the age of the hardware and software. Because of this and the relatively high cost of maintenance from the existing vendor, research has begun on identifying a replacement product. It is anticipated that this replacement will occur within the next year.
- As previously mentioned, the HTE modules will be migrated to a new graphical environment known as NaviLine. Completion of this project is anticipated within the next year. There will be a great deal of coordination required with user departments to train and test in order to assure a smooth transition.
- The cabling at the Law Enforcement Center is based on Token Ring technology. This cabling needs to be replaced in order to provide higher speed network communication using Ethernet. Recabling is anticipated within the next year.
- As of year end, several projects at the Library were in the planning stages. The software used for catalog and circulation functions is provided and supported by the Valley Library Consortium. However, upcoming changes being proposed will require a more significant involvement by the Information Services staff. The existing text based application will be replaced by a more graphical Windows based application. This will require existing terminals to be replaced by PC's and client software installation on every PC. Additionally, research is being conducted on new software to limit patron Internet access to one hour and to more effectively manage patron print jobs in order to recover printing costs.



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 to the next department or departments that need to view, approve, or distribute. For certain types of jobs, this can result in reducing cycle time by days and a tremendous reduction in clerical costs since filing, retrieving, and copying is greatly reduced.
- With the complexity of computer automation implementation efforts in the future, developing and refining project management techniques will be an ongoing goal.
- 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.
- Replacement of obsolete hardware and software is an ongoing task.
- The increasing popularity of some organizations using open source applications such as Linux or Open Office in place of Microsoft’s operating systems and office suite has caused testing of open source software to begin. No decisions have been made as to a future plan at this time. Issues such as overall features supplied, ease of use, and long term cost savings need to be completely evaluated.
- Both the Imaging and GIS software implementations will require a tremendous number of hours 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 process 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.