

DEPARTMENT OF INFORMATION TECHNOLOGY

Tim Calderone, Director

The Information Technology Department keeps advancing with all of the exciting new technologies. These technologies are helping the City of Mishawaka become a much more efficient local government. At the same time they are improving the customer service the citizens of Mishawaka receive and expect. Several very large projects were started in 2010 and will be completed and come online in 2011.

www.mishawaka.in.gov

The most visible technology update was the launch of the new City of Mishawaka website - www.mishawaka.in.gov. This project was started in 2009 with the creation and hiring of the web developer position. On April 1st the Department went live with the new site. The new site is built in Drupal which is an open and flexible framework that even the White House adopted this year for its website. The site's design allows for new images to easily be placed within the top banner and show images of the City in the current season.



It keeps the site fresh and dynamic. The front page of the site offers up-to-date major news items to inform citizens of current and pertinent information in a timely manner. Residents and even former residents can stay better informed about what is happening in the City.

Online Customer Service

An exciting new piece for the website is for customers to book and pay for Parks Department resources. You can now reserve and pay for pavilions and parks online. Also available to Mishawaka Utilities customers is online bill pay. This is a great convenience for customers and has been well received. The new site is keeping the citizens updated on construction projects and traffic alerts. The Department also joined the Facebook community. The updates placed on Facebook have been well received. There are over 1,500 followers of the City of Mishawaka Facebook page and there has been a good exchange of information with citizens when they have questions.

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Intranet

The other major web initiative this year was the start of a City intranet site. This internal web site is called Compass. Compass is quickly becoming the best way to reach out to City employees with current information. Compass stands for City Of Mishawaka Portal And Staff Services. The front page of the site holds timely news for City employees like



insurance open enrollment information or activities in which City employees can participate. There are calendars on the site to reserve resources online. Benefit information and forms are now in one easily accessible location.

Automated Time and Attendance Software

One of the major projects the Department started in 2010 and will continue into 2011 is the automated time and attendance software. This system will significantly improve our collection and reporting of time and attendance. Payroll is the single largest expenditure for the City so any improvement in this area stands

to have significant cost savings for the City. The Mishawaka Utilities already use an older version of the software package the IT Department will use, and are currently upgrading to unify the rest of the City into one collection system. Employees will also be able to access the software through Compass to do self service. Self service will consist of activities such as requesting time off or checking remaining vacation balances. The Department has mounted new biometric palm reader time clocks at all the locations with hourly employees. Moving away from paper based time cards to a pure electronic collection will be a huge improvement in the collection process.

City Works

Another major project that IT started was the implementation of the City Works, the work order management software. This software will become used by all departments to coordinate their activities. The use of a unified software package for this across all departments of the City will help facilitate better tracking of all projects. City Works is a GIS based system that will leverage our substantial investment in our current comprehensive GIS system. For better planning, the system will allow for tracking work done over time on City assets. To implement City works the Department needed some various layers in our GIS that would accommodate the integration. The Department needed a "City Owned Property" layer. This layer is broken down by pavement, landscaping, grass, sidewalks, ball diamonds, etc. For example, the Department can easily calculate the acreage of grass that needs to be mowed, square footage of

landscaping, or amount of sidewalks that need snow removal. This layer benefits the departments that do the maintenance at these properties.

The GIS system started a major upgrade in 2010 that will finish in 2011. An entire testing and staging environment has been created by the Department. This will allow changes and upgrades to be made in a non-production environment to ensure the stability and integrity of the production system. This upgrade will make GIS easier to use for the average City worker. It allows for publishing maps into a web format that is very easy to use. This format would be familiar to anyone who has used Google maps. This upgrade will allow for publishing maps to our new City website for the general public to use.

Volunteer Income Tax Assistance Program

The City Of Mishawaka partnered with United Way in February and March to offer a tax assistance lab. The IT department set up a temporary computer lab at the Battell Center.

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United Way volunteers used these computers to assist folks in their tax preparation and filing. This was a great community resource that helped many citizens of Mishawaka. The computers that the Department used were ones that the Department had just taken out of service and were about to retire, but with reformatting, they were perfect for the use in the lab.

EMS Laptop Improvements

EMS switched their billing software to an online provider. New laptops were used so that patients were able to sign right on the screen of the laptop. Maintenance mode on the old software has been established for the purpose of archival retrieval and reference. The new software has been a big improvement over the previous package that the City was using.



Upgrades

All of the Fire stations received new multi-function printers. These devices act as a network printer, copy machine, fax machine and scanner. These replaced the individual devices that only performed their respective function. They are appropriately sized to each location based on the historic volume of activity done on their devices. This has also helped to eliminate the inkjet printers that were at these locations. Inkjet printing is significantly more expensive than laser jet printing and is helping to save costs. Each fire station also had a new Cisco WiFi access point installed in or near the garage bays. This allows the laptops in the trucks to stay in constant communication with back-end systems. Prior to this new access point installation, when a truck was dispatched, it could take a minute or two for the laptop to pick up the RF based signal and update the maps.

Many City facilities had their network equipment upgraded to support migration to the new City fiber network. The new Hewlett Packard switches have fiber modules that are compatible with the new fiber. The Department recently began migrating these sites to the new fiber. The new network will allow for more speed and redundancy as needed. The following sites have been migrated and are currently utilizing the new system: Utilities office, Battell Center, Fire 02, Fire 03, Police substation and EMS. The new fiber has proven to be very stable and reliable to these locations.



State of Indiana Crash Reporting Software

State of Indiana crash reporting software has been installed on the MDT's in all Police vehicles. This software allows an officer to complete a standard Indiana crash report while in his or her patrol car. This allows for quicker and more accurate reporting of

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crashes and allows an officer to stay out on the street instead of completing his or her reports at the station. E-Ticket has been installed in most

Police vehicles. This is an ongoing project as funding from the State becomes available. An E-Ticket is faster to complete over a standard hand written citation which reduces the amount of time an officer spends on traffic stops. Also, with many pre-filled fields an officer can concentrate on a violator more closely instead of writing.

Wireless Communication to City Vehicles

A project to go wireless with communication to City vehicles started in 2010. The IT department purchased an Alvarion WiMAX base station along with 5 in car receivers. This project is serving as a proof on concept for range and reception in the moving vehicles. All the testing being done will determine where the Department will need to mount several other base stations to blanket the city with wireless coverage. The units in the vehicles will act as Wi-Fi access points allowing us to connect many different devices without modification.

Disaster Recovery

Disaster recovery for IT systems becomes more and more important as our work increasingly becomes digital. Most servers are now backed up with disk based backup instead of tape based backup. Tape had many shortcomings like the amount of time it takes to write and retrieve from tape. Also, tape is not especially reliable due to media failure and wear. The disk based backup solution in place now is what is known as continuous data protection. Unlike our previous tape solution that would wait for the end of the day to commit that day's data to tape, the disk based solution is written to backup as soon as a change is made. This allows for much more current data retrieval in the event of an issue.

Older server hardware was retired to ensure reliability and stability of the City computer systems. Redundant authentication servers were added to eliminate single points of failure. Secondary DNS servers were also added for redundancy. The Department

continues to migrate systems to a virtual infrastructure with the use of VMWare. This has proven to be a significant cost saver.

Looking to 2011

As the IT department looks forward to 2011, it shows no sign of slowing down. Next year looks to be an even busier year than 2010. In addition to the current projects outlined above, the Department will implement even more. Because the current e-mail server is about 5 years old, the Department will need to migrate e-mail servers. E-mail has become a critical business communication tool that the City relies on every day, making a smooth migration critical.

The Storage Area Network will need to be expanded to accommodate the City's ever growing storage needs.

The migration of desktop operating systems from Windows XP to Windows 7 will begin in 2011 on all 350+ desktop computers. IT will

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continue to engage all City departments to find ways to use technology to improve efficiency in all of our business processes. There are many exciting challenges ahead that the dedicated, hard working staff of the IT department are ready to tackle.