

Information Services

Mark Andrasik, Director

Leawood, Ks



Date: 1/20/2015

**To: Honorable Mayor Peggy Dunn, City Council,
Scott Lambers – City Administrator**

Re: Items Accomplished for 2014

In keeping with past practice, I've prepared a yearly update regarding Information Services.

EXECUTIVE SUMMARY

This year's descriptive word is – *continuation*. Pretty cool, huh. Each year I try to encapsulate the annual work with one word. So, continuation it is. We are continuing the implementation of our new technology. The technology that we started at the new Justice Center last year has now begun its push to our other facilities. At City Hall this year, we've 'shoe horned' out the 19 year old phone system and replaced it with an integrated Cisco IP based phone system. Now the two systems, the one at the Justice Center and at City Hall are completely integrated and redundant. Furthermore, we've pushed our managed private and public wi-fi systems, faxing & paging systems and our security cameras to City Hall as well. We've completely replaced our systems 'closet' infrastructure at City Hall with new switches, patch panels, wiring, etc. At Parks Maintenance we've rolled out the new phone system and at Fire Station #3 the private managed wi-fi has been installed.

Wait, there's more.... We've installed many new technologies including a license plate reader system for our patrol division, a call recording system, and new laptops for our Fire Department vehicles and Municipal Court, the infrastructure for a new body camera system for police officers, a new remote access system or SSL-VPN, and much more. We've transferred our main ERP databases to new virtualized equipment and completed a major FullCourt Enterprise software and hardware conversion. We are reaping the benefits of last year's technology overhaul allowing us to be responsive to the business at hand. Our fiber connectivity, new data center, and equipment are instrumental to our overall objectives.

To put it simply, the work isn't slowing down; rather, it seems to accelerate.



Technology Items Accomplished

- City Hall
 - New Phone System
 - Paging & Faxing
 - Wireless – Private & Public
 - City Hall Networking Center
 - Security Cameras
- FullCourt Enterprise Conversion
- License Plate Reader
- Secured Remote Access - SSL VPN
- Increased Bandwidth to Facilities
- Network Monitoring Software
- Body Cameras for PD
- Network Attached Storage
- New Exchange Server
- Other Technology
 - ERP System Upgrades
 - Citrix Server Farm
 - New Fuel Maintenance System for Public Works
 - Disaster Recovery System to Johnson County

To the Mayor, Council, our City Administrator, and the Citizens of Leawood I would like to say thank you for all of your support, funding, and involvement. We are such a blessed community.

Having a staff of Mike Blankenship, Jack Reece, and Karl Weinfurter makes these items we've accomplished possible. This is a very small, dedicated, and motivated staff. I'm genuinely humbled by the amount and quality of their work. Thanks guys for all of your hard work – it makes a difference. Information Services will remain diligent in our responsibilities and enthusiastic about new opportunities as we head into 2015.

Please see the following pages for more detail.

Thanks, Mark

DETAIL

In this area I will detail specific items.

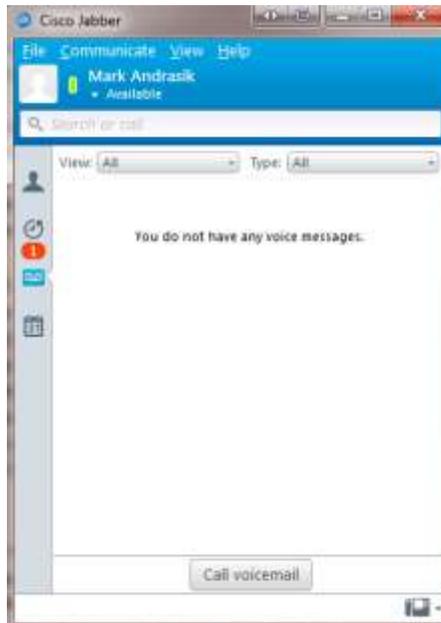
City Hall Technology

What is it?

The City Hall technology includes a completely new phone system from Cisco, wireless access both secured and public, new security cameras, and an overhaul of our City Hall network center.

Cisco Phone System – This replaces our existing 19 year old City Hall phone system. Communications need to be stable and secure. This platform integrates well with our existing Microsoft Exchange platform “Cisco Business Edition 6000 is designed for organizations with up to 1000 employees. The solution offers premium voice, video, mobility; messaging, presence and contact center features on a single platform and provides core communication capabilities medium-sized businesses need for improved collaboration. Enabled by virtualization technology, Cisco Business Edition 6000 consolidates multiple applications on single platform and therefore allows medium business to reduce their lower total cost of ownership and improve productivity of their employees. The high availability features supported by the solution make Cisco Business Edition 6000 ideally suited for companies that require mission critical voice, messaging....”.

New Cisco 8945 phones have been installed which integrate to our desktop computers and to our email system. For instance, the desktop computer interfaces with the new phone system by allowing employees to use Outlook to call a contact. They pick the contact they want to call and click on the “dial” option. The computer tells the phone to dial the number and it does. A phone call on your desk phone can be transferred to your cell phone without interruption – so you can walk out of your office while still carrying on the conversation. Your phone can be forwarded to your cell phone if you’re away from your desk. Faxes, texts, instant messaging, presence, and voice mail may be managed with your Outlook email client. This is Unified Communications.



Due to the system capabilities we were able to reduce the number of off premise extensions we currently use. Our parks & recreation maintenance facility is now using the new phone system via our data network. This saved roughly \$600/month in leased line charges.

The City Hall phone system is completely integrated to our existing Justice Center system. Both systems are replicated providing redundancy and business continuity. Direct-Inward-Dialing now exists for both facilities allowing a caller to skip any automated attendant and ring directly to the individual.

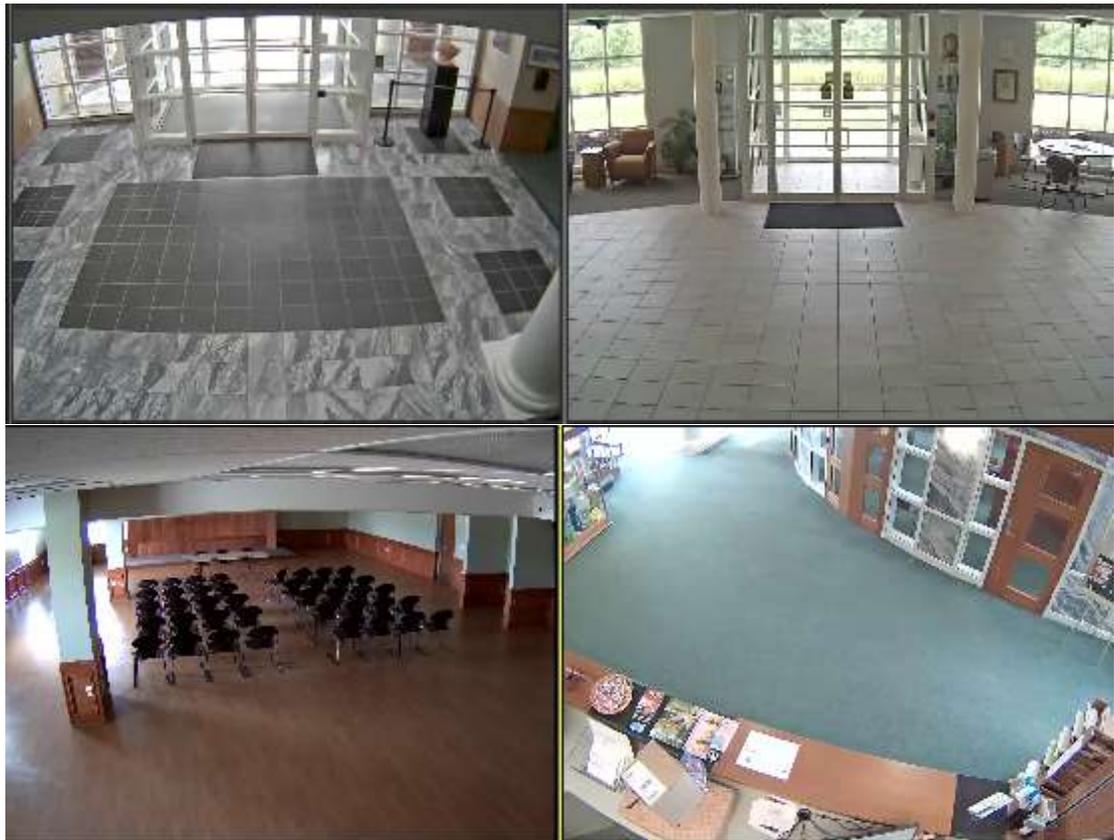
Paging & Faxing – Both our paging and faxing capabilities have been enhanced. We can now page multiple facilities concurrently. We can send and receive faxes from our email client. This helps enormously with incoming faxes. Instead of them going to a machine the can come into a distribution list or group of individuals. This helps to manage paper and information.

Wireless Technology – As an extension of our Justice Center managed and secured wireless system from Cisco we’ve covered City Hall with new wireless access points. This system allows private (city business) wireless access as well as public wireless access. The two functions operate over the same infrastructure but are completely segmented from each other. This wireless technology enables greater mobility no longer being tethered to your desk or specific office. iPads, tablets, and mobile devices of all sorts are now integrated directly into our network. This is another block to our technical foundation that will serve us well into the future.

City Hall Networking Center / “Closet” – What used to be a hornets nest of wires has now been dramatically reorganized due to the systems and wiring management we’ve been able to install. New Cisco POE (power over Ethernet) switches have been installed. Due to virtualized servers and the new switches we’ve been able, in essence, to cut roughly in half the electrical requirements. This means less power to run it and cool it.

Security Cameras – Again, a continuation of our Justice Center technology we’ve implemented new security cameras at City Hall. These are primarily public facing high definition cameras covering points of entrance. The foundation is the Genetec system which records and archives many days’ worth of video for future review, if necessary. This information is displayed on our video system at the Justice Center’s Communications / Dispatch location.

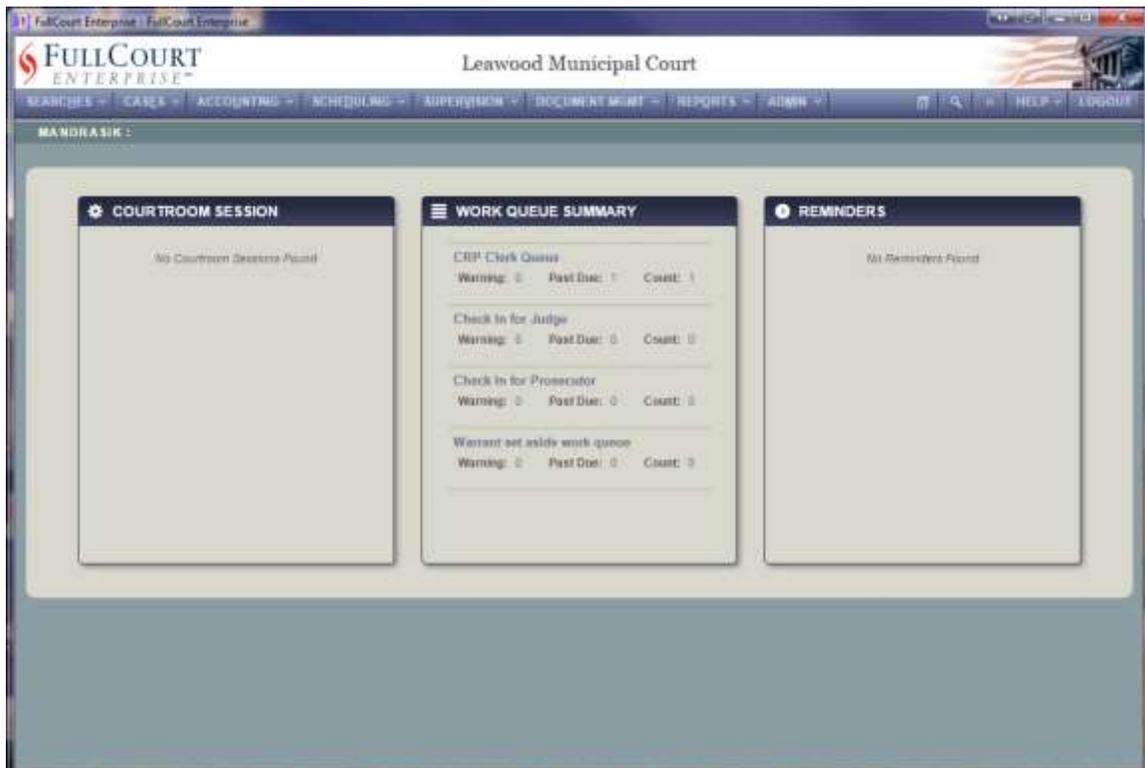
See screenshot below.



FullCourt Enterprise Conversion

This past year we completed a major conversion of our existing FullCourt municipal court software system. We converted from physical servers to virtualized ones, changed from an Oracle database to Microsoft SQL, and went from a thick client to a

Google Chrome client. The new court software, from Justice Systems, is completely re-written to be more processed based as compared to the older version. Although a daunting task the Court staff embraced the change and proved a very quick study. We've incorporated new laptops to make processing during court to more seamless and productive. A sincere thanks to Patty Bennett, Shelley Sawyer, Holly Ford and the entire court staff for their work with this conversion.



License Plate Reader

In concert with the Police Department we implemented a license plate reader system. At this time it's specific to one of our patrol vehicles which has a number of cameras mounted on it. As it drives the streets, parking lots, etc., the cameras instantly capture license plate numbers which in turn are searched against police databases. If a "hit" is acquired then both the patrol officer and dispatch are immediately notified.

Remote Access System – SSL Virtual Private Network

As part of our continuing work to secure our network and increase productivity we've installed a new remote access system. This secured virtual private network (VPN) allows employees and vendors to access our network remotely from anywhere on the internet with the correct credentials and access. Employees can use the system to remotely

access their office desktop computers. We secure this access by employee and vendor, by equipment and ip address, and functionality.

For instance, with our HVAC systems the vendor would like remote access. This can be done such that access is allowed only to a specific piece of equipment and so they can't access other network systems. In the long run this helps us provide more security to our networks.

Increased Bandwidth to Remote Facilities

We continually push forward with our goal of connecting all of our City facilities with fiber. In the interim, we have increased our leased bandwidth to a number of our facilities. With TW Telecom we've increased bandwidth to five of our facilities and to the internet. This allows us to push out new technology to our outlying facilities and have quicker access to them and to the internet.

Network Attached Storage

In order to store and maintain police in-car video and in preparation for the forthcoming body camera video from our police officers we needed to increase our network storage. We've purchased a couple of devices that offer RAID 6 technology and a minimum of 25TB's of storage each. Basically, two drives in the array could fail and the system will still be working. This storage is critical to our ability to off load these files quickly and reliably from the recording devices. Officers can quickly retrieve their video and specific retention schedules are applied.

Network Monitoring Software

This system provides up to the minute event monitoring for our servers, automating security monitoring and response to stop threats, maintaining continuous security and compliance. If network devices fail notifications are sent to appropriate personnel.

New Exchange Server

Email is one of our most important technologies. Our existing email system needed to be upgraded. As a result, we've converted our physical server into our virtualized environment and migrated all user mailboxes to the new system. Not only does this provide increased speed, but also reliability and storage. The complexities of this migration are very high and impact most every system on our network.

❑ **Other Items**

- ERP System Upgrades
- Citrix Farm Rebuild
- New Fuel Maintenance System for Public Works
- Disaster Recovery System to Johnson County
- Upgraded Major Software Systems
- Upgraded In-Car Video System Software
- Finalized Certification for R56 Grounding
- NetMotion Upgrade
- Network Documentation
- Upgrade Workstations – Public Works Maintenance & Fire Station 1 & 2
- Website Modifications
- Equipment Surplus & Recycling
- Budget All Employee Salary & Benefits for 2014 & 2015
- Year End Personnel Analysis (Wages & Benefits & Overtime)
- Crystal Reports
- Total Compensation, Workers Comp, Reports for Human Resources
- Full Parcel Imports from Johnson County

Technology continues to change. Upgrades are required, new voice, data, and video systems become operational backbones to our daily work; all of which require our time and attention. As our technology continues to evolve we will remain committed to a positive direction. We are excited about our future as we head into 2015 and we are thankful for the support and opportunities to serve the Mayor, Governing Body, City Administrator, and Citizens of Leawood. Please contact me if you have any questions.

Sincerely,

Mark Andrasik

Director of Information Services

City of Leawood, Kansas

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