

# HENRY COUNTY / PSA INFORMATION SERVICES



## Technology Assessment - 2015

The Information Services Department exists to support all technology needs for Henry County, Henry County Public Service Authority (PSA), and the Martinsville-Henry County E911 Center.

# Henry County / PSA Information Services

## TECHNOLOGY ASSESSMENT - 2015

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## EXECUTIVE SUMMARY

There is a 50-50 chance that the storm of the century will hit this year. How many times have we heard similar claims from our local meteorologists with only vague indicators to suggest such a statement? If it happens, they are right. But if not, they are still right. However, if this storm hits without any prediction, somebody is going to be looking for a new job.

Fortune Tellers use loosely worded statements to convince people that they can predict the future. Unfortunately, in the real world, we do not own a crystal ball and must ask big questions to predict future trends, needs, and problems. The 2015 Technology Assessment has been created to both showcase our accomplishments and to evaluate our ability to perform superior service while confronting some of these difficult problems.

Continued support for the Henry County telephone system (PBX) is becoming increasingly difficult to obtain. While we have just signed a 3-year maintenance contract, our vendor is very interested in replacing it sooner. Should we migrate to a hosted solution or purchase another PBX?

The single greatest expense for the Technology Department is the annual support fee paid for the County's accounting package (ERP). These fees pay for updates to existing modules but do not grant us access to newly created modules, such as Employee Self Service. In addition to each new module costing us a purchase price of several thousand dollars, our annual fee continues to rise each year. Is there a different software solution that could meet our needs at a more affordable price?

Photos and videos are increasingly being used to document our work. The Assessors take photos of every property, Investigators record interviews with suspects, and Deputies are now testing body cameras to reduce complaints. Digital cameras have become so compact and powerful that the images being collected easily fill our existing servers. Cloud based solutions allow users to upload their work through the Internet, where it is warehoused for as long as needed, but how comfortable are we allowing a 3<sup>rd</sup> party vendor to hold our information? How do we regain control if we are unhappy with their service? Is this option better or less expensive than an in-house solution?

Everyone hopes that the new year will be better than the previous, and life would certainly be easier if we just avoided asking the tough questions. However, I believe that there is peace of mind knowing that you have done your homework and are prepared for the "big one."

Christian Youngblood, Director

February 26, 2015

## MISSION

The Information Services Department will provide effective and cost-conscious solutions, whenever possible, to resolve any request or problem encountered by any of our users, and we shall do such in a timely and courteous manner.

## GOALS

The following 4-goals will be the defining guidelines of the Information Services Department

- When it comes to any Technology need, the Information Services Department will be the agency that our users **want to** call, not who they **have to** call. Our service will rival that of any outside agency and we will take pride in our reputation.
- Continuing education in Technology will be of paramount importance for the Information Services staff and will be extended to all Henry County & PSA personnel. We will strive to stay abreast of both current and emerging technologies while retaining the skills necessary to support our legacy systems.
- We will provide the employees of Henry County and Henry County PSA reliable equipment by creating and adhering to a responsible Capital Improvement Plan (CIP).
- We will always be cost-conscious of our expenses to ensure that our Citizens' money is used wisely. We will use internal staff when justified while being mindful of activities that are more cost effective to outsource. We will create and manage numerous vendor relationships to ensure competitive pricing for equipment and/or services that we must purchase.

## SERVICES / TECHNOLOGIES SUPPORTED

The Information Services Department supports many pieces of Technology that are common place for most organizations. Implementation and maintenance requires skilled project management and execution to ensure the reliability required by Henry County, PSA, 911, and other departments. Examples include:

- Desktop PCs, printers, scanners, & other peripherals
- Servers
- Network services (user authentication, file services, antivirus, etc.)
- PBX telephone system
- Audio-visual equipment (televisions, projectors, sound systems, etc.)
- Email and websites
- MUNIS Enterprise Resource Planning (ERP) financial system

In addition to these “standard” items, the Team must support many more proprietary Technologies that require constant retraining and dedication of resources. Examples include:

- Mobile Data Terminals (MDTs) for Law Enforcement
- Video surveillance systems
- GIS mapping
- Parks and Rec reservation/management system
- Customer Self-Service portals for our Citizens
- Computer Aided Dispatching for e911
- Jail Management and Sheriff Management software
- Mobile devices, both County issued and personal
- Audio/Visual assistance
- Custom software (Jury maintenance, Law Accreditation, Incident Management, etc.)
- Document archiving

## BY THE NUMBERS

The Technology Department is currently supporting the following devices:

- 411 Workstations
- 26 Servers (12 physical, 14 virtual)
- 328 Email Accounts
- 521 Telephones
- 184 Mobile devices (smartphones & tablets)

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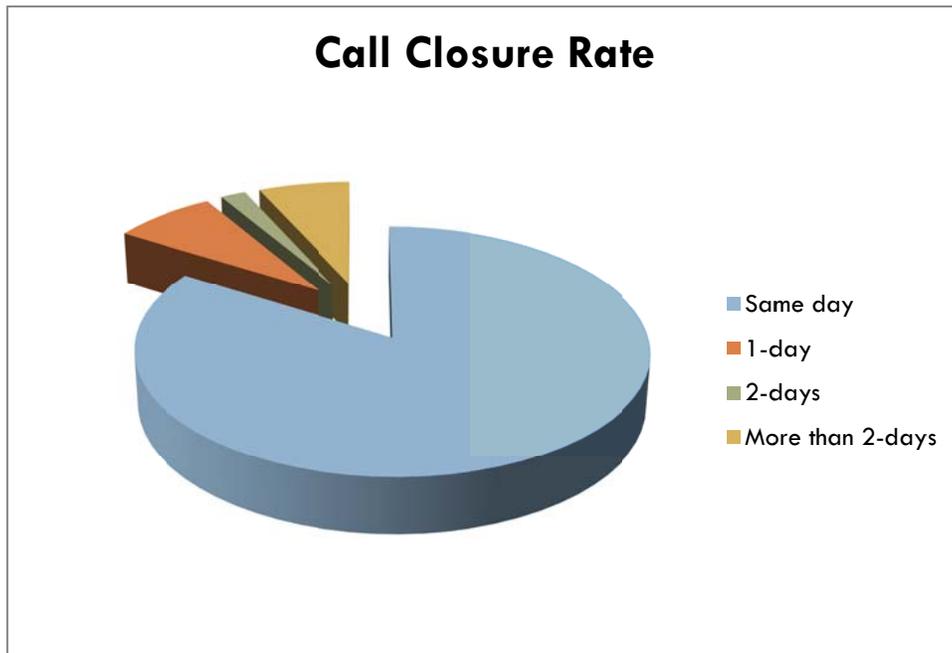
## ACCOMPLISHMENTS 2014

The job of a Technology Department is never complete. Upgrades and patches are released for existing applications regularly. New software is constantly being created that requires higher processing power and users always need more storage capacity. Each of these items must be coordinated and thoroughly planned to ensure that our users receive the service they require without any interruption. Following is a sampling of the many projects that were completed during the 2014 year:

- Windows XP - With the end of Windows XP support, we upgraded the operating system on over 125 desktops and laptops to ensure continued security updates
- Replaced the core networking switch for all Henry County and 911 operations; Installed an additional network device to monitor for malicious software and aid in the reporting of outside attacks
- Integrated Social Services accounting functions with our ERP
- Instituted an in-house monitoring system for the Public Safety radio system
- Upgraded most remaining Windows 2003 servers to a supported version
- Designed and implemented a LAN/WAN for Philpott Marina that allows for both cashiering and continuous surveillance
- Designed and implemented a LAN/WAN for Commonwealth Crossing that allows for both Internet and continuous surveillance
- Relocated all premise wiring, computers, and phones for the Civil Division
- Integrated radio-read water meters into our ERP
- Replaced a system for plat research that was limited to a single PC with a web-based solution that is available on the Internet
- Upgraded our 1990s based Building Permit software with a modern, graphical system that is supported by all current versions of Windows
- Prepared 47 Desktops and Laptops for the annual County Surplus Auction
- Installed 63 new PCs and 2 new servers

## INCIDENT REPORT

According to our Incident Management System (TeamManager), the Team resolved 2151 incidents from Jan. 1, 2014 to Dec. 31, 2014, of which 83.9-percent were resolved the same day and 7.5-percent were resolved the next day. The vast majority of calls not closed the same day were requests that required the services of our ERP or telephone service providers. Service requests range from simple tasks, such as resetting a password or clearing a paper jam, to complex tasks such as configuring a redundant application server in a remote location.



The five departments that requested our services the most this year were: Sheriff (512 calls), Treasurer (139 calls), Public Safety (126 calls), School Board (109 calls), and the Jail (98 calls). Combined, these departments accounted for approximately 46-percent of all service requests/incidents.

### Who Do We Serve?

- !!!Citizens!!!
- Accounting
- Administration
- Assessor
- Board of Supervisors
- Building Inspection
- Buildings and Grounds
- Commissioner of the Revenue
- Commonwealth's Attorney
- Courthouse
- DRBA
- E-911
- Engineering
- Extension Office
- Gateway Streetscape
- Human Resources
- Jail
- Magistrate
- parks & Recreation
- Planning
- Police Academy
- PSA Customer Service
- PSA Shop
- Public Safety
- Purchasing
- Registrar
- School Board
- Sheriff
- Social Services
- Treasurer
- Treatment

## CHALLENGES / NEEDS

Despite the vigilant work of the Information Services Team, we still have a number of challenges and needs that must be addressed in order to continue providing top-quality service. Some of these items will require additional capital funding, while others will simply require additional training of the Technology Department and/or Users. Not all challenges are easily recognizable and, as such, the Technology Team constantly seeks out problems in an effort to be proactive.

**Data storage / Bandwidth** – Many departments have found great benefits in recording videos and taking photos. The newest cameras record in high-definition quality and take still photos at resolutions exceeding 20 Megapixels. The Sheriff is currently testing body camera technology that is likely to generate more than a Terabyte of data each year, more than all of our existing data combined.

Strategy: Investigate the most efficient means of storing and retrieving massive amounts of data, keeping in mind that a cloud based solution will require substantial broadband. Any in-house solution needs to address high-availability and provide a method for performing backups.

**Staffing needs** – New responsibilities are being added to the Technology Department each year, many of which require new skillsets and additional training. Compensation paid by the County, for personnel with specialized skills, is substantially lower than those paid by other employers in the area.

Strategy: The County will need to hire additional staff to meet the growing requests for new services. Without additional staffing, existing services would need to be trimmed in order to add new services.

**Aging MDTs** – Sheriff Deputies use ruggedized laptops as “Mobile Data Terminals” (MDTs) in their cars to improve their efficiency while on the road. The MDT allows a Deputy to perform license and license plate checks while making a traffic stop. They are able to see real-time information from the 911 Communications/Dispatch center, automatically report their location, query wanted profiles from the Jail & Sheriff databases, and much more. Henry County has some of the most updated software available to connect the Sheriff, 911, and Jail staff. Laptops do not tend to last as long as desktops and are much more costly to service. Many of the MDT’s are now more than 3-years old and out of warranty.

Strategy: FY-2015 contained funds to replace 12-MDTs while additional money was diverted from other projects to replace an additional 5. The Sheriff must replace 10-MDTs each year to maintain a fleet of reliable computers.

Aging Report (MDT)	
Year	Qty
2009	8
2010	2
2011	1
2012	9
2014	18

**Aging desktops** – Computers now last much longer than they did a decade ago. The joke used to be that you could buy a new computer and it would be out of date before you got it home. This was somewhat true around the turn of the century. Since about 2005, hardware performance has drastically outpaced software requirements and older computers continue to function much like newer models. Older computers are slower to respond than newer computers and become less reliable due to equipment failure. Approximately 43% of Henry County’s PCs are already 5 or more years old.

Strategy: All PSA computers are being replaced in an appropriate cycle. County computers, aside from the Sheriff’s computers, are modern machines with current software. The Technology CIP is unable to replace any of the office computers, which are primarily desktops, in the Sheriff’s Department or Jail and their budgets have lacked funding to perform any replacement for years. They currently have 92-computers, of which 74-percent are running an outdated operating system and are 5-8 years old. The Sheriff should budget for a minimum of 10 desktop computers each year to maintain a fleet of reliable computers.

Aging Report (computers)	
Year	Qty
2004	4
2005	1
2006	6
2007	58
2008	36
2009	71
2010	27
2011	39
2012	55
2013	51
2014	62
2015	1

**PBX** – We operate our own PBX to support our 521 telephones and faxes. This PBX has had numerous software upgrades and is currently running the latest available software, but it is based on old technology that is rapidly being replaced and this unit is nearing end of life support. Additionally, the manufacturer of the current PBX has been purchased by another vendor and this brand has been discontinued.

Strategy: The County signed a 3-year maintenance agreement in December 2014 to ensure continuous operation of the existing PBX. However, an entire PBX replacement will be required in approximately 3-5 years and require a costly upgrade (~ \$300,000) that has been added to FY-2018 CIP. The Technology Department will review alternatives to maintaining a PBX, including the use of a Vendor to provide phone services.

**ERP Software** – Both the County and PSA are using the same ERP software for billing, collection, payroll, general ledger, budgeting, and more. The annual fee for this software accounts for the largest, single expense in the Information Technology budget and continues to increase each year. Additionally, new modules typically cost thousands of dollars and are not included in this fee.

Strategy: We will survey similar sized localities to determine the level of functionality that they receive from their ERP and at what cost. Additionally, we should contact other software vendors and solicit proposals to change products. Negotiating a long-term contract with our existing vendor may be beneficial.

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## CONTACT INFORMATION

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