ITCS Annual Report – 2024

In 2024, the County's Information Technology and Communications Services Department completed several projects as it continued to assist the County through a significant period of transition. Key milestones achieved this past year include:

- The ITCS Department completed a complete overhaul of the County's wireless network infrastructure. Legacy access points and controllers were replaced with new equipment from UniFi providing increased coverage and additional security functionality.

- All existing perimeter firewalls were upgraded in 2024. These upgraded edge devices allow for increased bandwidth throughput and additional layers of encrypted data inspection functionality.

- A significant network redesign started in 2024. This encompassed the purchase and implementation of new core switching devices as well as the implementation of additional network segments with access control lists (ACL's) between them. This additional security functionality limits the types of traffic allowed to traverse through our network.

- A desktop lifecycle plan was established and implemented in 2024. This resulted in over 100 aging desktop computers being upgraded.

- The ITCS Department worked with the County Clerk's office to establish the technology required to meet the requirement of a dedicated interpreter phone system located within the DMV.

- The annual Cyber Security training offered in 2024 was completely restructured. A Learning Management System (LMS) was developed using the County's SharePoint Online platform. Users completed the training by reviewing several training videos then completing a competency quiz. Users also had the option of attending one of several in-person trainings, rather that complete their training online.

- After significant research and vendor demonstrations, the ITCS Department chose FreshServcice as its Information Technology Service Management (ITSM) platform of choice. FreshService was implemented for all IT related service ticket submission and management. An IT Service Status Board was established and all communication from the ITCS Department to County and Shared Service agencies go through the status board.

- A requirement was identified by the Tioga County Safety Officer for a License Plate Reader (LPR) camera to be located at 56 Main Street. An LPR was purchased and installed at 56 Main Street. This LPR captures and records every license plate of vehicles that enter the parking lot.

- Critical infrastructure located at Public Safety was relocated to the data center at 56 Main Street. Virtual Machines which were located at Public Safety were transferred to the service infrastructure at 56 Main Street as well. Legacy server equipment was retired and recycled.

- An extensive Information Technology Professional Development plan was developed and executed throughout 2024. Classes covered topics ranging from Microsoft Office (Outlook, Word, PowerPoint, Teams, OneDrive, etc.) to Website management, to GIS tools.

- Monitors were replaced in the IT training room at 56 Main Street. Also, a TV was purchased and installed providing stable presentation technology within the space.

- The ITCS Department was able to investigate alternative providers for cellular services. They found an opportunity for both improved coverage and significant savings. The ITCS Department spearheaded a migration of all cellular service from Verizon to AT&T's FirstNet platform. Anticipated savings for the County is to be around $15K per year.

- Two members of the ITCS Department attended the NYSLGITDA conference.

- ITCS worked with the Department of Social Services on the implementation of a new fiber optic service from Verizon for Guthrie contractors at the Health and Human Services building.

- An exhaustive search for a Network Administrator was successful. The ITCS Department added a highly qualified member to the team.

- ITCS staff coordinated efforts with the County Clerk's office to provide Tyler Technologies copies of the Cott Systems database to migrate services to Tyler Technologies. This is a multi-year project led by the Clerk's office.

- ITCS staff coordinate with the Public Safety department to identify a roadmap for retiring the legacy Impact system. Impact will be decommissioned on May 1, 2025.

- The Public Safety department used a software program called Smead Color Bar for wrist band and folder labeling. This software was retired and no longer supported by the vendor. The ITCS department investigated options and worked with a vendor to design a solution that met the needs of the Public Safety department.

- As the implementation of the Computer Aided Dispatch system, Flex, continued to grow, there was a need to formally identify the process for municipalities to request access and add vehicles. A standard agreement was drafted and approved which included and approved software and hardware list. Municipalities wishing to connect to the County's CAD system are required to sign the agreement and install and maintain the software and hardware within the approved hardware and software list. As a result of this effort the Candor Police Department, Candor EMS, and Appalachian Fire Departments signed the FLEX agreement are in the process of establishing connections to the County's CAD system.

- The requirement to increase and segregate sensitive evidentiary data was identified. A solution using a Network Attached Storage (NAS) array was implemented to achieve both results for the Tioga County Criminal Investigations Division.

- Verizon has been working to decommission its analog infrastructure within our region. As a part of that project, an existing T1 circuit located at the County's alternate 911 center needed to be replaced. This circuit was used as a backup communications circuit for the County's Fire Radio system. ITCS staff worked with Southern Tier Network (STN), Upstate Pole Service, and Capital Area Communications staff to build a dedicated, County-owned fiber circuit between the Tioga County Public Safety and the alternate 911 call center to replace the Verizon T1 circuit.

- The ITCS Department was heavily involved in the retrograde of the County's 911 dispatch center. All computing hardware was upgraded and integrated with the new desk software. The County's 911 phone system was upgraded to Motorola VESTA and existing security cameras and displays were moved and upgraded.

- ITCS Staff completed a major upgrade to Motorola FLEX, the County's Computer Aided Dispatch (CAD) system. This update required collaboration between Motorola engineers, NYS network engineers, NYSP ITS staff, and County ITCS staff to ensure all FLEX was upgraded with all services restored within the scheduled maintenance window.

- To bolster critical Public Safety communication infrastructure a project was planned and approved to establish dedicated fiber circuits between the County Public Safety building and the Health and Human Services (HHS) building. This allows for increased bandwidth and improved network stability to and alternate 911 call center.

- The County's fingerprint system used for the Jail intake and pistol permitting process had its security configuration evaluated and improved. This required individual user permissions to be properly configured on both physical sites of the system.

- ITCS staff coordinated with network engineers from Spectrum to identify an appropriate roadmap for replacing the legacy TV system within the jail. This project will be executed in 2025.

- ITCS staff worked with County Mental Hygiene staff to make technology recommendations for the building project at Waverly. This required the installation of building access and security hardware, video teleconferencing hardware and software along with new computers, monitors and peripherals at the new site. ITCS staff completed the installation of this hardware prior to the office was opened.

- A separate PCI compliant network was designed and implemented within the Mental Hygiene locations. This improved the security of credit card transactions within those locations.

- ITCS staff coordinated with the Village of Waverly Police Department to establish a secure network for the implementation of its Axon body camera and taser systems.

- The Village of Waverly Wireless Networks were upgraded at all sites within the Village using new UniFi access points.

- ITCS GIS staff provided numerous personalize and group training sessions to further the understanding of GIS amongst County personnel. These training opportunities provided staff with the understanding of GIS, frameworks for implementation, data analysis and management instructions.

- ITCS staff provided IT consultation regarding an extensive public safety grant application. If awarded, this grant will significantly increase response and prevention activities within the village.

- The County's mobile dental van had its technology completely overhauled. This included the implementation of a CradlePoint router with an external antenna. Broadband internet service was migrated to AT&T's FirstNet service increasing coverage and bandwidth to the van.

- A PCI-compliant wireless network was configured and implemented within the dental van. This increased the security of credit card transactions within this mobile site.

- A significant Board of Elections Risk Assessment (RA), required by NYS, was completed by ITCS staff prior to the 2024 presidential election. The results of the RA will be used to identify areas of improvement and possible cost allocations in the future.

- Security cameras were procured and installed within critical County Board of Election spaces, also prior to the 2024 presidential election.

- Polling location network equipment had their broadband service provider swapped from Verizon to AT&T's FirstNet prior to the 2024 presidential election. This required the purchase of new MiFi devices, and configuring their SIM's appropriately.

- ITCS staff worked with County Board of Elections staff to identify and implement a secure data backup process for their new election system.

- ITCS staff participated in a NYSBOE sponsored Tabletop training event.

- The phone system at the Town of Nichols court was migrated to the County's network. This required additional licenses and phone and network hardware to be purchased. After this project was completed, Town of Nichols staff determined they would like to migrate court computing devices to the County's network. A secure network subnet was established, and all data devices were migrated.

- ITCS staff consulted with Town of Nichols staff to determine appropriate locations for security cameras within its new Town Hall as well as its old Town Hall. Cameras were purchased and installed at those designated sites.

- ITCS staff consulted with Town of Nichols staff to determine an appropriate networking solution for a future implementation of a SCADA system within the township.

- ITCS staff completed the adoption and implementation of the Allen Tunnel Corporation (ATC) tax software within the Town of Nichols.

- ITCS staff coordinated with Village and Town of Nichols staff to identify a security project for Kirby Park. Network infrastructure was installed allowing for the implementation of several cameras within the park.

- ITCS staff coordinated with Tioga County Soil and Water Conservation District to migrate a public facing web server off County infrastructure and onto a hosted web server. While this decreased network traffic destined to the County infrastructure it also increased the security stance, for both the web server and the County's network perimeter.

- A significant upgrade to the Tioga County Soil and Water Conservation District's Quickbooks system was completed. This included the migration of the software to a terminal service server, allowing multiple staff members to use the system at the same time.

- ITCS GIS staff provided technical guidance on over thirty Departmental projects throughout the County. Some of the skills contributed through our department partnerships were project scoping, data management, data analysis, and reporting.

- ITCS Staff coordinated with staff from the Town of Owego to design and install cameras for their new fuel tanker. These cameras provide significant protection to a critical piece of infrastructure for the township.

- ITCS staff also provided consultation to Town of Owego staff in the design and installation of technology systems aligned with their Emergency Operations Center retrograde. This included the upgrade of a PC designed to run the display system within the center as well as the configuration and installation of two weather stations.

- ITCS staff completed the installation of security cameras throughout the Town of Owego's town hall and highway facility. This required coordination with staff from the Town and with Verkada engineers.

- ITCS staff responded to and restored a network outage at the Town of Owego's sewer treatment plant. Network services were restored to the Town's critical facility quickly.

- ITCS staff coordinated the migration of all publicly shared data to an internal Dropbox system for Tioga County Tourism. This allows for effortless sharing of data while maintaining ownership of the data and ensuring security requirements are upheld.

- A significant project was completed with the District Attorney to design and implement an evidence management system. This system allows for secure storage and easier data sharing with multiple agencies.

- As a member of the County's Land Records team, ITCS GIS staff assisted with the processing of 1,637 land records that yielded 2,218 land transactions within the County's land records parcel fabric data management system.

- ITCS staff upgraded the wireless infrastructure within the Village of Owego EMS department to support their required narcotics lockers.

- ITCS staff coordinated with the Village of Owego Police Department to retrofit their patrol cars with License Plate Readers (LPR's).

- The Town of Barton experienced a major outage due to a lightning strike. This damaged most of the networking equipment within their Town Hall. The ITCS department responded to the outage and temporarily restored services immediately. Following the outage all networking equipment was permanently replaced with new equipment.

- ITCS staff coordinated with the Social Services staff to move the Children's Advocacy Center (CAC) to a new space within the same building. Networking equipment was relocated, along with all CAC technology assets. Coordination was completed with New Hope Center IT staff to migrate services for their employees as well.

- ITCS staff relocated the Star Witness System to the new office space as well. Attempts to coordinate system moves with the vendor were not successful. Rather than delay the move any longer, ITCS moved the cameras, microphones, lights, and recording equipment to the new interview rooms.

- ITCS staff also consulted with Social Services staff regarding the upgrade of the interview room camera system. The new space has additional interview rooms and rather than invest in the Star Witness system for an additional room, it was recommended to outfit those rooms using Verkada cameras.

- The ITCS department continued its effort to align with the National Institute of Standards and Technology (NIST) framework, several amendments were made to the Comprehensive Information Security Policy. Those amendments included areas such as Identification and Authentication, Contingency Planning, Configuration Management, Physical and Environmental Protection, Security Assessment and Authentication, Access Control, Audit and Accountability, and Awareness and Training.

- ITCS GIS staff created eight custom web applications to support smart governance with data-driven decision-making tools, promoting community outreach through interaction and transparency, as well as aiding in project / program administration and implementation.

Looking Ahead:

- In 2025, the ITCS department will restart their effort of investigating Managed Print Services (MPS) agreement options. A successful MPS agreement will provide automated supplies and service to the printer and copier fleets while cutting operating costs to the County.

- There are several Information Security (IS) projects which are scheduled to be completed in 2025. Some of these include the completion of penetration testing, implementing Multi-factor Authentication for elevated accounts, increased network segregation, and improved annual security training.

- A major project scheduled to be completed in 2025 is the deployment of Windows 11. Testing is near complete, and a deployment schedule will be shared with our users by the end of February 2025. Windows 10 will reach end of life by October 31, 2025, which means the Windows 11 deployment will be completed by then.

- There are also several projects related to Tyler MUNIS that are planned to be addressed. These include the implementation of records purging, configuring appropriate permissions in Tyler Content Manager, and the investigation and determination of the MUNIS roadmap plan regarding whether to continue to use an on-premises version or the application or whether it would be beneficial to utilize Tyler's hosted version of MUNIS.

- The ITCS department has installed and configured System Center Configuration Manager (SCCM), which will be used to image new devices, deploy mandatory software and to provide an optional Software Center. The Software Center will allow users to install approved software themselves.

- The MITEL phone system is due to be updated. This update has passed testing with our phone vendor, All Mode Communications. An update schedule will be identified and communicated.

- Initial discussions have been made with the County Public Safety department regarding the possibility of migrating their voice and data broadband services to AT&T's FirstNet network. Further analysis will be completed with a determination about the project following. If it is determined to be beneficial to migrate those services, it will be completed in 2025.

- A County website planning committee will be established in 2025. This committee will be responsible for reviewing our current website and making recommendations / requirements for a new County website. Anticipated rollout for a new County website will be January 2026.

- The next phase of implementing the County Service Center is to migrate as many manual form processes as possible to automated forms using the platform. ITCS staff will continue training and implementing these services throughout the year.