

LEADERSHIP SUPPORT SECURITY

CHIEF INFORMATION OFFICER'S ENTRY PLAN

JEREMY S. LOVELAND





Legislative Chair

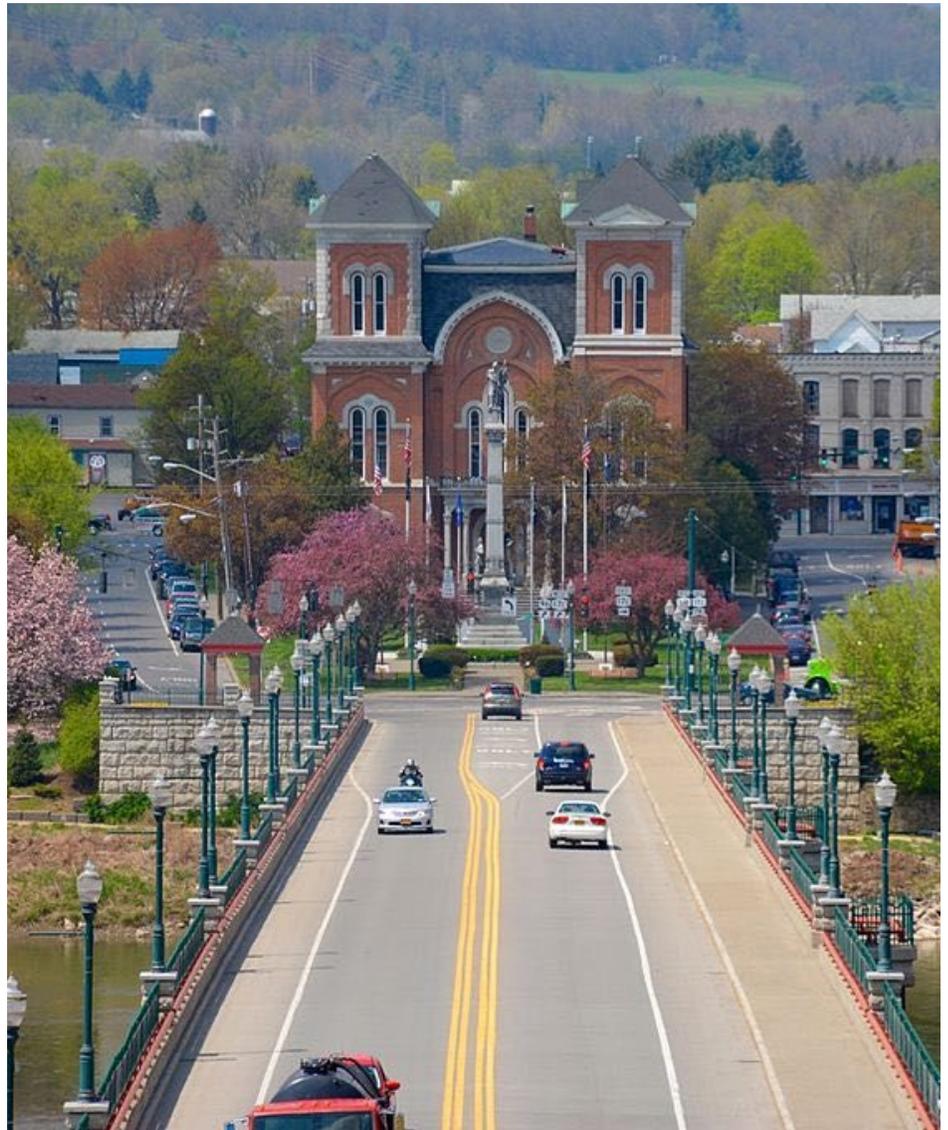
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A MESSAGE FROM THE CHIEF INFORMATION OFFICER

The Tioga County Legislature has charged me, as its Chief Information Officer, with maintaining and improving the Information Technology Infrastructure and Services throughout Tioga County, New York.

Over the past several months, as I explored the county as its new Chief Information Officer, I was able to witness our mission in action. Our employees work tirelessly to fulfill our obligation to serve our communities.

Although gratified by our many achievements and quality programs, Tioga County is committed to improving every day and every year. The past few months have been a testament to that commitment as we prepared for the future and strategized ways to achieve a progressive vision set forth in this entry plan.

This document serves a two-fold purpose: It's a culmination of a several-month long study of the ITCS Department and an activation of an exciting time of transition. The entry plan is guided by input and feedback received from stakeholders as well as my own observations.

The strategic vision and activities outlined in the following pages are informed by common themes that emerged during my visits or in the ITCS climate survey results. My examination of the ITCS department included reviews of our organizational structure and culture, the state of our infrastructure, security posture, communication, and our ability to provide excellent customer service.

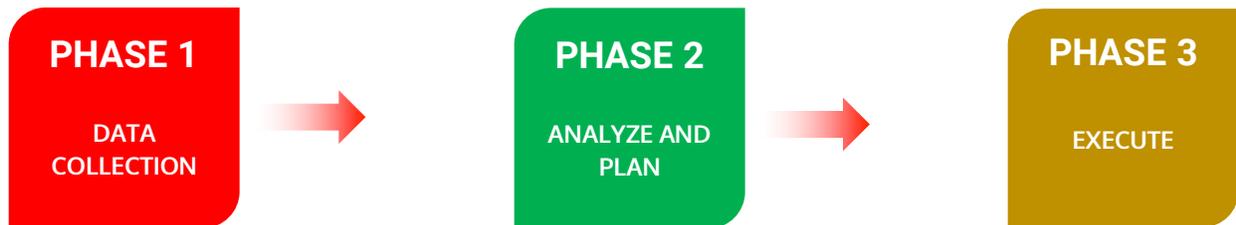
The process has been educational for me, and, together with the Legislature, we will work to address the themes that surfaced. The goals presented in the following pages, of opinion, have been made with the best interests of our citizens and the overall health of our County in mind. To be successful in achieving this vision it will require a strong commitment by stakeholders and active engagement by employees who are energized, engaged and valued.

Jeremy S. Loveland
Chief Information Officer

THE ENTRY PLAN: THEMES, GOALS & THE PROCESS

"Give me six hours to chop down a tree and I will spend the first four sharpening the axe."

Abraham Lincoln



The entry plan has three phases:

THEMES & GOALS

This document is meant to provide a framework and direction for upcoming ITCS initiatives. Many of the goals are dependent upon the financial stability to meet the needs of the county. The three overarching themes and goals focus on:

1. **Leadership:** Fostering a mission-focused, team-centric environment while focusing on the development of other leaders through communication, accountability, and empowerment.
2. **Support:** Delivering consistent, high-level customer support to all Tioga County stakeholders.
3. **Security:** Create and maintain safe and supportive information systems for effective business and governmental processes.

Steps to obtain the goals outlined in the entry plan began in August 2021 with phase 1. However, to accomplish these goals, it will require our team and myself to:

Listen – Spend time with County employees, Legislature, and citizens to gain a better understanding of our accomplishments and greatest challenges.

Learn – Analyze and study performance data and other data. Read and review County policies and implementation of those policies.

Share – Get to know the community better by sharing my leadership story, philosophies and core values. I will strive to establish a positive tone and urgent pace.

Build – Establish strong working relationships and build rapport with the Tioga County Legislature, Tioga County Leadership and employees, community, and state and local leaders.

Plan – Review current plans with specific steps to guide the work of Tioga County, which will depend upon future budgets and legislative agendas.

LEADERSHIP

“Effective leadership fosters a mission-focused, team-centric environment while focusing on the development of other leaders through communication, accountability and empowerment.”

ENTRY FEEDBACK AND INPUT

- Need for decisive leadership within the ITCS Department
- Professional development of ITCS staff
- Legislature placed an emphasis on deck plate leadership within the department
- Increase collaboration of the IT Steering Committee
- Limited information and communication coming from the ITCS Department
- Equal distribution of resources (hardware and human) across all departments and buildings
- Upgrade and update the County website; simplify maintenance of website
- Increase collaboration within County

“The key to success in any organization is identifying, developing, and empowering the right people.”

- Craig Groeschel

“The difference between mere management and leadership is communication.”

- Winston Churchill

DEFINED GOALS

1. Increase both department and inter-departmental communication and workflow processes to increase efficiency throughout the County
2. Develop and foster a team-centered, collaborative and professional work environment
3. Develop and increase IT skillsets within the ITCS department.
4. Investigate and deploy strategies for maintaining fiscal responsibility while maintaining and growing essential IT services and support throughout Tioga County



Defined Goal Number One:

Increase both departmental and inter-departmental communication and workflow processes to increase efficiency throughout the County

Action Items:

1. Implement Microsoft Office 365 throughout the County to provide automated workflow processes, shared calendars, and collaborative tools required to foster and atmosphere with increased teamwork throughout the County.
2. Develop an online County ITCS service status board, offering live data on the status of the various IT services provided by the ITCS department.
3. Evaluate current trouble ticket processes, identify additional functionality needs, and develop a trouble ticket strategy to increase communication between the ITCS department and the end-users regarding the status of and work being completed on their submitted trouble tickets.
4. Develop and implement robust Change Management (CM) tracking and end-user notification process.
5. Develop a County Website Committee to review the current County website, identify existing short-comings and future needs. If required, this committee will be the catalyst for change for the optics and functionality provided to our public via the County website.
6. Investigate feasibility of using Chromebooks and Chromeboxes throughout Tioga County for general use, digital signage and Legislator use.

Defined Goal Number Two:

Develop and foster a team-centered, collaborative and professional work environment

Action Items:

1. Continue bi-weekly ITCS Department meetings to discuss projects, and provide opportunities for team members to participate fully in all current departmental projects.
2. Educate, equip and empower ITCS team members to manage their workload and make decisions. I firmly believe an accurate indicator of how empowered team members are is determining how low in the organization someone has the authority to say, "yes."
3. Determine proper job responsibilities for each position and update job descriptions identifying those responsibilities.
4. Investigate and improve current Remote Work and Remote Support tools available for Tioga County users.

5. Develop and implement transition plan for GIS Manager's upcoming retirement.
6. Develop and monitor manpower analysis process to ensure efficient and timely services are provided consistently and equally throughout Tioga County.

Defined Goal Number Three:

Develop and Increase Information Technology skillsets within the ITCS Department

Action Items:

1. Develop departmental, cross-training Professional Development strategies designed toward both maintaining and developing additional IT skillsets within the ITCS department.
2. Identify and pursue Professional Development seminars, conferences or workshops throughout the region.
3. Continue partnership with NYSGLITA to foster an atmosphere of information and knowledge sharing between New York State Governmental Information Technology entities.

Defined Goal Number Four:

Investigate and deploy strategies for maintaining fiscal responsibility while maintaining and growing essential IT services and support throughout Tioga County

Action Items:

1. Execute plan to bring the Village of Owego and the Town of Candor onboard as Tioga County IT Shared Services entities.
2. Investigate and implement additional strategies and opportunities to grow IT Shared Services throughout Tioga County.
3. Develop and maintain a robust five (5) year strategic IT planning document highlighting budgeting priorities and planned capital projects.

SUPPORT

“Building a good customer experience does not happen by accident. It happens by design.”

Anonymous

ENTRY FEEDBACK AND INPUT

- Climate survey results were encouraging.
- Interviews with staff, Department Heads and Legislators were all very positive.
- Remote Support services need improved and standardized
- Current ticket management system lacks reporting capabilities. Email submission is the only form of submission
- Tier 2 level IT skillset needs improved / increased
- Currently no IT Professional Development being offered outside of the GIS application Professional Development
- A major finding in the climate survey was improving printing and copying services

“When I think about great service, it's about how you take every interaction you have with the customer and use that as a way to improve their perception of your organization.”

- John Herstein

“Quality in a service or product is not what you put into it. It is what the client or customer gets out of it.”

- Peter F. Drucker

DEFINED GOALS

1. Prioritize Professional Development
2. Improve Printing and Copying Services
3. Pursue and implement proven support best-practices within ITCS Department
4. Maintain and improve IT Infrastructure throughout the County



Defined Goal Number One:

Prioritize Professional Development

Action Items:

1. Develop departmental, cross-training Professional Development strategies designed toward both maintaining and developing additional IT skillsets within the ITCS department.
2. Develop and implement a robust and continuous Information Technology Professional Development strategy for all Tioga County and Shared Service employees.

Defined Goal Number Two:

Improve printing and copying services

Action Items:

1. Complete a detailed analysis of existing lease agreements on copiers. Seek competitor pricing and model comparisons. Evaluate current copy leases to determine whether to continue partnership at the end of the lease agreements.
2. Completed detailed analysis of all non-copy printing devices in order to ensure right-sizing and proper printing locations.
3. Investigate and implement a Managed Print Services (MPS) agreement for all non-copier printing devices. An MPS will standardize and simplify the management, repair, and toner logistics for all County devices.

Defined Goal Number Three:

Pursue and implement proven support best-practices within ITCS Department

Action Items:

1. Investigate, develop and implement a Ticket Management System (TMS) which improves ITCS department to user communication. The TMS should also allow data be analyzed periodically to provide statistical data used for decision-making and determining Professional Development priorities.
2. Document and diagram all Tioga County IT networks and systems. Maintain an annual review process designed to ensure the validity of this documentation.

3. Develop an online County ITCS service status board, offering live data on the status of the various IT services provided by the ITCS department.
4. Investigate, develop and implement network monitoring services for all Tioga County IT networks and systems providing 24/7 monitoring and notification services.
5. Develop and implement Standard Operation Procedure (SOP) program to ensure all essential tasks are documented and reviewed annually to ensure validity of information within the documents.

Defined Goal Number Four:

Maintain and improve IT Infrastructure throughout the County

Action Items:

1. Migrate current on-premise Microsoft Exchange 2019 server to Microsoft Exchange Online. This reduces cost of maintenance, while improving the collaboration of services between other Microsoft Office 365 applications and services.
2. Replace End-of-Life (EOL) Server Hosts with supported hardware. Current hardware is no longer supported by VMware nor HPE.
3. Complete analysis and review of current Wireless Network infrastructure. Current system is a Cisco system, with many Wireless Access Points (WAPs) being purchased used, from eBay.
4. Upgrade Storage Area Network (SAN) arrays with devices supporting increased data compression and Data-at-Rest (DAR) encryption.
5. Upgrade Sophos Firewall devices with current hardware supporting SSL decryption.

SECURITY

“One single vulnerability is all an attacker needs.”

Window Snyder

ENTRY FEEDBACK AND INPUT

- Independent Cyber Security Audit found the following major findings: Data-at-Rest (DAR) Encryption, Multi-Factor Authentication, Access Control monitoring
- Lack of Change Management Process
- Sufficient processes for keeping software patched and updated
- Lack of hardware / software discovery reporting
- Insufficient restrictions on removeable storage devices
- Complete annual Phishing campaigns to raise awareness with users
- Lack of consistent physical access control and security camera systems
- Information Security Officer Job Description needs reviewed

“There are only two types of companies: those that have been hacked, and those that will be hacked. Even that is merging into one category: those that have been hacked and will be again.”

- Robert Mueller

“Security is not a product, but a process.”

- Bruce Schneier

DEFINED GOALS

1. Establish Cyber and Infrastructure Security as a main pillar of Tioga County ITCS services and support.
2. Pursue security best practice implementation at Tioga County.
3. Introduce and maintain transparency and accountability throughout all Tioga County ITCS services and support.



Defined Goal Number One:

Establish cyber and infrastructure security as a main pillar of Tioga County ITCS services and support

Action Items:

1. Continue assisting the Information Security Officer (ISO) with the development and implementation of a Business Continuity Management (BCM) policy and plan.
2. Partner with the Information Security Officer (ISO) in the development and implementation of targeted information campaigns regarding Information Security topics for all Tioga County users.
3. Actively participate in annual table top cyber security exercises planned and executed by the Information Security Officer.
4. Review Information Security Officer (ISO) job description to ensure all essential roles and responsibilities are included.
5. Complete bi-annual anti-phishing campaigns for all Tioga County users to ensure users are trained and are practicing safeguards against Phishing attacks.

Defined Goal Number Two:

Pursue security best practice implementation at Tioga County

Action Items:

1. Upgrade existing Storage Area Network (SAN) devices with hardware that supports Data-at-Rest (DAR) encryption and provide an improved disaster recovery feature-set.
2. Develop and implement a robust data backup / Disaster Recovery (DR) strategy.
3. Implement Multi-Factor Authentication (MFA) to access Tioga County resources externally.
4. Subscribe to and implement Access Control management and reporting software for all Tioga County networks and systems.
5. Complete the migration of all Board of Elections devices to a separate and protected network segment.
6. Comply with and enforce established password management procedures defined in the Comprehensive Information Security Policy.
7. Investigate, develop and implement a consistent, standard building access control system within Tioga County.

8. Remove all generic network and system accounts with elevated privileges. All elevated accounts need to be associated with a specific user.
9. Investigate, develop and implement a consistent, standard security camera system withing Tioga County.
10. Complete an annual penetration test to ensure the external perimeter maintains an acceptable cyber security stance.

Defined Goal Number Three:

Introduce and maintain transparency and accountability throughout all Tioga County ITCS services and support

Action Items:

1. Develop and maintain documentation and diagrams for all Tioga County networks and systems.
1. Develop, implement and maintain a Privileged Account Authorization (PAA) process which is reviewed annually.
2. Develop detailed and robust Change Management (CM) policies and procedures aimed at improving communication and decreasing unplanned user impact regarding required updates and changes to Tioga County networks and systems.
3. Investigate and implement a hardware and software discovery and reporting tool for all Tioga County networks and systems.
4. Ensure all Tioga County users complete annual Cyber Security training.

