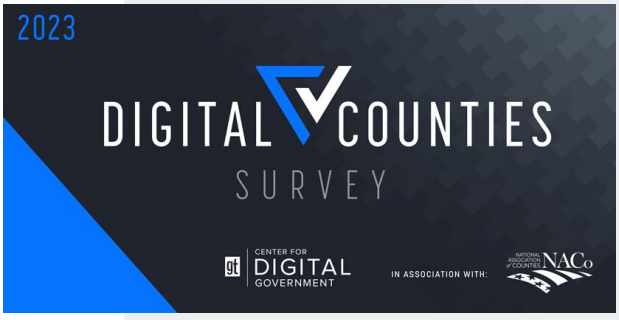
Pitt County
Management Information Systems

2024-2026

Technology Strategic Plan

Contents



Leadership

Michael Taylor

Deputy County Manager, Chief Information Officer

In 2023, Mike Taylor and team received recognition as a leading Digital County in the population grouping of 150,000-249,999 adding on to the award being received in prior years.

"We never lose sight of our role as a service organization, collaborating with business partners in equipping County employees with the technology required to meet the needs of the community effectively." -Michael Taylor

Organizational Mission

The Mission of Pitt County Government is to enhance the health, safety, and well-being of our community by advocating for and providing quality services in a friendly and cost-effective manner.

Our Vision

The Management Information Systems (MIS) vision is: empowering Pitt County through technology while serving citizens with integrity, initiative and innovation.

Our Mission

The MIS Mission is to serve as a trusted partner, provisioning reliable and accessible technology aligning with organizational goals, striving for excellence in customer service.

IT Guiding Principles

PRINCIPLE #1 *Enterprise Value Focus*

Aim to provide maximum long-term benefits to the enterprise as a whole, while optimizing total costs of ownership and risks.

Rationale

- Solutions must aim to maximize the cumulative business benefits over their entire lifecycle.
- Enterprise priorities are above the priorities of a business unit or a project.
- Total cost of ownership is more important than the cost to buy or build alone.
- Risk mitigation and management are integral elements of the County's operating model.

Implications

- Track and demonstrate business value realization on all major investments.
- Prefer common solutions and shared services that benefit the enterprise over one-off solutions for one business unit.
- Analyze and take into account organizational readiness for adopting new solutions.
- Manage development and operational risks on every project and acquisition.
- Include the total cost of ownership analysis for the proposed solution or solution options for major investment (project or acquisition) proposals.
- Prefer vendor-independent solutions to avoid vendor lock-in and enable competitive sourcing.

PRINCIPLE #2 *Fit for Purpose*

Maintain capability levels and create solutions that are fit for purpose without over-engineering them.

Rationale

- To be effective in satisfying business needs, solutions must be fit for purpose, i.e. fully conform to both functional and non-functional requirements.
- Over-engineered solutions result in wasted budget, time, and resources and often increase operational complexity.
- Required capability levels should be maintained to enable achievement of business, IT, and capability goals.
- Higher-than-needed capability levels cost more, while not resulting in additional value.

PRINCIPLE #2 *Fit for Purpose*

Maintain capability levels and create solutions that are fit for purpose without over-engineering them.

Implications

- Identify functional and non-functional requirements of the business and buy or build solutions that conform to them.
- Identify the following non-functional requirements for solutions that need to be procured or built:
- Business continuity requirements, i.e. availability, reliability, and recoverability.
- Performance requirements, i.e. response time and throughput.
- Usability requirements, i.e. accessibility, localization, user interface aesthetics, and consistency.

PRINCIPLE #3 *Simplicity*

Choose the simplest solutions and aim to reduce the operational complexity of the enterprise.

Rationale

- Complex solutions and high operational complexity impede reuse and interoperability, require increased effort to add, transform, or replace solution components, and result in higher lifecycle costs.

Implications

- Minimize the unnecessary complexity.
- Restructure existing application portfolios so that they become highly modular and loosely coupled.
- Eliminate duplicate application functionality.
- Design solutions that simplify business processes and technology assets that support them.
- Build highly modular and loosely coupled solutions.
- Use standardized integration approaches.

PRINCIPLE #4 Reuse > Buy >Build

Maximize reuse of existing assets. If we cannot reuse, we procure externally. As a last resort, we build custom solutions.

Rationale

- Economies of scale are achieved through reuse of solution components and the purchase of commercially available products, enabling the reduction of risk and effort.
- Reuse helps avoid duplication of effort, decrease maintainability, and increase staff competency requirements.

Implications

- Build for reuse only if feasible. Consider costs of building for reuse versus potential frequency and benefits of reuse.
- Reuse across business units. Choose cross-silo solutions over duplicative silo-specific ones. Buy or build shared services, common business solutions, and common-use applications.
- Prefer vendor-independent solutions to enable portability and cross-platform reuse.

PRINCIPLE #5 Controlled Technical Diversity

Limit the variety of the technology platforms we use.

Rationale

- Limiting the number of different supported technologies:
  - Improves maintainability and reduces total cost of ownership.
  - Enhances staff focus on standardized technologies and reduces staff competency requirements.
  - Improves solution interoperability.

Implications

- Build a case and obtain executive approval to introduce a new technology.
- Request for approval to introduce new technology only if there is a valid reason, e.g. replacement of outdated technologies, IT-enabled business innovation, or reducing operational complexity.
- Consider the benefits of introducing a new technology versus the required additional maintenance effort, additional staff competency requirements, increased complexity, and the potential lack of interoperability with existing technologies.
- Balance controlling technical diversity and IT-enabled business innovation.
- Prefer vendor-independent technologies to enable solution interoperability and avoid vendor lock-in.
- Reduce integration complexity by using standardized integration approaches.

PRINCIPLE #6 Security and Compliance

Manage security enterprise-wide in compliance with our security policies.

Rationale

- Security threats represent a high privacy risk.
- Security-related risks require special treatment due to the associated complexity of required control procedures and rapidly changing threats.
- We operate in a way to maximize compliance with applicable laws and regulations.

Implications

- Every solution (procured externally or built internally) should comply with our security policies.
- The existing IT environment must be continuously monitored for security vulnerabilities and breaches.
- Security vulnerabilities and breaches must be treated to minimize the associated business and privacy risks.
- IT investment proposals must comply with applicable laws and regulations.

PRINCIPLE #7 Continuous Improvement

MIS is committed to continuous improvement.

Rationale

- Review client needs and identify strategic technology to ensure organizational advancement.
- Focus on efficiencies and effectiveness in County operations while enhancing the quality of service.

Implications

- Measure and improve customer satisfaction with our services and products.
- Define service levels for services provided to our customers; measure and improve our performance.
  - Engineer products with best-in-class usability.
  - Manage usability requirements (accessibility, localization, user interface aesthetics, and consistency) and test solutions against them.
  - Listen to customers by involving them in product design.
- Manage customer relationships.

Goals and Initiatives

GOAL: Service Delivery

Ensure appropriate allocation of resources that support County staff in the effective use of technology.

Business Benefits:

- Efficient and timely technology service enables County staff to serve citizens more effectively.
- Recognizing and addressing staff "pain points" focuses resources with the biggest immediate client benefit.
- Seeking opportunities for continuous improvement and cost reduction supports the County mission.

Initiatives:

- Assess current processes, selecting suitable tools, and offer robust training to staff.
- Evaluate and refine the evolving organizational needs through engaging stakeholders.
- Conduct succession planning and cross-train staff to maintain a stable support base.

GOAL: Security

Implement strategies minimizing exposure and impacts of potential security threats.

Business Benefits:

- Implementing appropriate security measures mitigate the risk and potential costs associated with breaches.
- Robust security minimizes business disruptions possible with malicious attacks.
- Applying professional security practices is a part of data custodian stewardship, protecting public data entrusted in our care.

Initiatives:

- Assessment of security services and partner relationship.
- Standardize firewall rules and Windows server perimeter protection for all Windows servers.
- Maintain physical security standards with door security upgrades and targeted camera systems.
- Ensure appropriate device-level security.
- Maintain and enforce data protection by monitoring, identifying and implementing encryption of confidential, identifiable data.
- Complete a review of the County's payment card processing and data retention practices in order to update policies, processes, and technology as necessary.
- Complete a review of the County's protected health information, environment and update policies, processes, and technology as necessary.
- Broaden threat detection and response solution to enhance the County's ability to proactively scan, assess, and remediate threats.
- Leverage available content and features within the security awareness training platform to increasingly educate the workforce on various aspects of compliance.

GOAL: Data Accessibility

Provide expanded access to data and services (both internally, through employee remote access and data analytics, and public-facing self-service).

Business Benefits:

- Expanding remote access strategies not only aids employees working in nontraditional places but has the potential to simplify some workstation administration.
- Data Analytics in practice can help mitigate risk and fraud, highlight opportunities for cost reduction, and help with anticipating needs.
- Making data available to the public through self-service mechanisms enables free and timely citizen access while reducing staff time spent on public requests.

Initiatives:

- Implement a citizen-centric community development Permitting/Inspections system providing greater contactless business flexibility.
- Introduce a contactless payment portal that is more convenient for citizens.
- Optimize and expand spatial data presentation to the public.

GOAL: Responsive & Resilient Infrastructure

Develop enhanced methods, plans, procedures, and architectures that support critical systems.

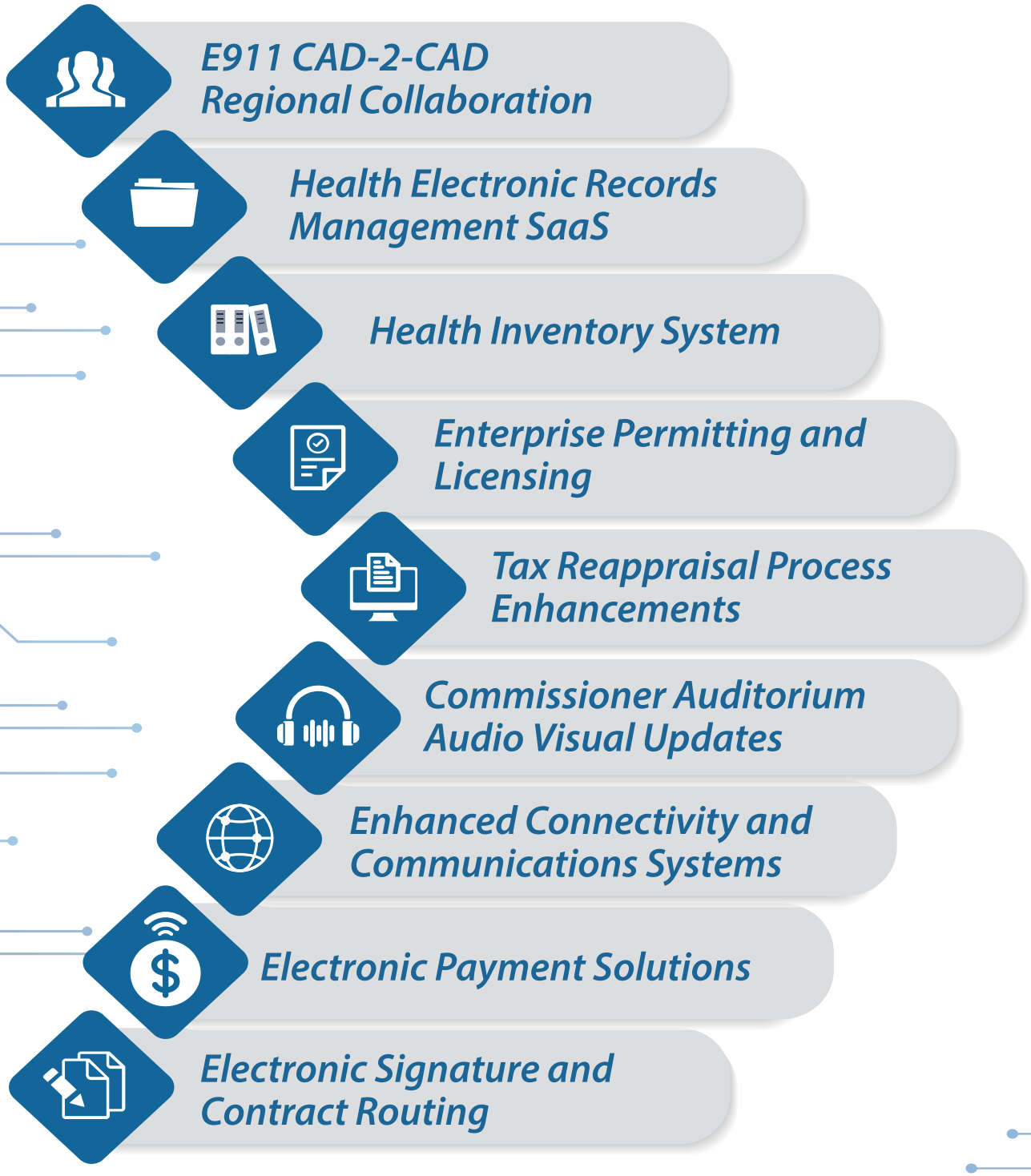
Business Benefits:

- Replacing and upgrading equipment based on expected lifecycle, prior to failure, reduces downtime and supports business continuity.
- Avoid disruption of business and service delivery to citizens.
- Recover from disruption and restore services as quickly as possible.
- Protect and retain data in a controlled environment.

Initiatives:

- Provide operational benefits through network equipment functional migration.
- Maintain system stability through continuous system lifecycle planning to stay ahead of deprecated technology changes, replacing or re-engineering prioritized systems.
- Affirm state of readiness by scheduling periodic tests of business continuity and disaster recovery plan.
- Increase redundancies of intra and inter-campus connectivity using unique pathways.
- Expand dedicated internet services.
- Identify gaps in coverage to enhance Wi-Fi services through County facilities and replace/upgrade equipment where coming to end of support.
- Evaluate current needs in data backup/archive and implement a new or enhanced system to meet those requirements.

Current Projects



Technology Strategy Refresh

By the very evolutionary nature of technology, a Technology Strategic Plan cannot be static. As new opportunities develop and organizational requirements evolve, a regular pulse-check is necessary to ensure the roadmap is both current and relevant. To that end, the following check-points are an important part of the planning process.

Annually:

- Discuss the past year's technology accomplishments.
- Highlight issues or lessons learned.
- Identify any changes to corporate strategy, goals, or objectives.
- Determine impact on technology strategy (if any).

Quarterly:

- Demonstrate last quarter's accomplishments or issues.
- Discuss upcoming quarter's initiatives or potential roadblocks.
- Identify any business or departmental changes that may have an effect on the technology strategy.

Monthly:

- Discuss strategic project status, potential roadblocks, etc.

Pitt County
Management Information Systems

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