

Technology Services Strategic Performance Plan

Revised June 2021



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Introduction

Performance Clackamas is Clackamas County's strategic plan and new way of ensuring that the county meets high performance standards for serving the public. The plan focuses on five overarching strategic priorities, selected by the Board of Commissioners after considering more than a year of public input from surveys, town hall meetings, business meetings and other forms of community comment. Each goal is supported by measurable and specific objectives along with a timeline. The progress made toward accomplishing the objectives will be available to the public.

The strategic priorities are:

- Build public trust through good government
- Grow a vibrant economy
- Build a strong infrastructure
- Ensure safe, healthy and secure communities
- Honor, utilize, promote and invest in our natural resources

Adoption of Performance Clackamas demonstrates the county's intent to focus on the customer in everything it does, and to be able and willing to keep taxpayers informed about what they and their community are getting for their money. The format of Performance Clackamas is based on Managing for Results (MFR), a comprehensive and integrated management system focused on achieving results for the customer. By adopting a MFR-based system, the Clackamas County Board of Commissioners is committing the entire Clackamas County organization, including its elected officials, its administrative structure, its employees and its budget, to achieving positive results for our customers. Five basic components capture the essence of MFR:

- Identify the priorities the county is trying to address on behalf of its residents;
- Develop an overall plan for addressing those priorities;
- Develop policies, programs, activities and services that align to those priority areas;
- Organize and implement budgeting, accounting and management systems to support the strategies, goals and objectives specified in the plan; and
- Develop and track costs and performance data to allow the county and its residents to gauge the county's progress toward reaching its goals and objectives.

All county employees play a role in ensuring that the county remains committed to achieving positive results for customers. Every county department will identify its customers, and apply MFR principles to improve performance and demonstrate how effectively and efficiently it is

delivering programs and services to customers. In turn, customers will have the opportunity to know how the county is serving them and how the county is using its financial resources.

HISTORY

Starting in mid-2014, teams from the county including department directors, county administration and key staff began meeting to plan for the implementation of the Performance Clackamas initiative. After developing an initial scope for the project, a RFP was issued in August of 2014 for a consulting firm to help lead the process for the county and to provide a web based solution for the assimilation and presentation of the performance measurements. The RFP was awarded to the consulting firm Managing Results LLC to lead the process that was named Managing For Results (MFR). To coordinate the overall MFR project, a county project team was created led by Policy Administrator Dan Chandler and executive management leadership by Deputy County Administrators Laurel Butman and Nancy Newton.

The first round of departments went through the MFR process starting in late 2014 and presented the new MFR based budget during the FY2015-16 budget process. This was a very involved and transformative process that set the overall stage for the remaining departments in the county. During this time, Technology Services assisted in the required database, programming, reporting and integration changes required to implement the new MFR processes.

The second round of departments went through the MFR process in the July – September 2015 timeframe. Technology Services was part of this round of departments. Our management team initially met for a week in July to review the overall TS Issue Statements, Strategic Results and organizational structure. For a couple of weeks in August 2015, several TS teams worked with Managing Results to develop the list of services and associated key measures. These teams comprised a mix of key staff from TS totaling around 25 members.

In late August, the TS Management Team regrouped with Managing Results to review the previous activities and develop an initial strategic plan as well as tune the key measures. Overall, TS found this process to be intense, thought provoking, interesting and even exciting in the potential deliverables it would provide TS in being able to better measure the performance of its services in support of the County. For the most part, communications and project direction were effective. Our only recommendations for process improvement that might be suggested include:

- More time with Managing Results, TS was not able to complete all activities
- More examples of best practices and samples to draw guidance from

ROUND 2

In late 2018, after a couple of years adjusting some of the metrics and implementing several resources for additional metrics (such a Happy-Not kiosks, several surveys, call ticket

satisfaction surveys, system logs. Workforce, etc) a review of the status / usefulness of the TS MFR plan was performed. It was determined by TS and County Administration that while some useful performance information was found, overall there were some issues that prevented full utilization:

- The key issues and threats had aged and some resolved, new issues emerged
- Many of the metrics were not readily available or of any real value
- TS services had evolved in several areas and needed to be aligned with the plan
- The County had evolved the MFR process and TS needed to update our plan
- MFRLive had been replaced by ClearPoint and the metrics realigned

Given these issues, it was determined Technology Services was in a good position to “reinvent” the MFR plan almost from scratch. This allowed TS to utilize lessons learned since the original MFR plan, include some additional staff with critical knowledge to the process as well as an opportunity for the administration to use the TS reboot as a training exercise for a new group of county MFR “experts”. This group would become the MFR facilitators for the county, able to lead other departments through similar processes and plan development. This facilitator trainee group proved to be very helpful during the entire TS process.

During the months of May & June 2019, Technology Services went through the Strategic Plan process again with representatives from MFR. This process resulted in:

- Updated issue statements that better represented the risks for Technology Services
- Re-aligned programs with updated descriptions and services
- Updated metrics that were more realistic, measurable and usable

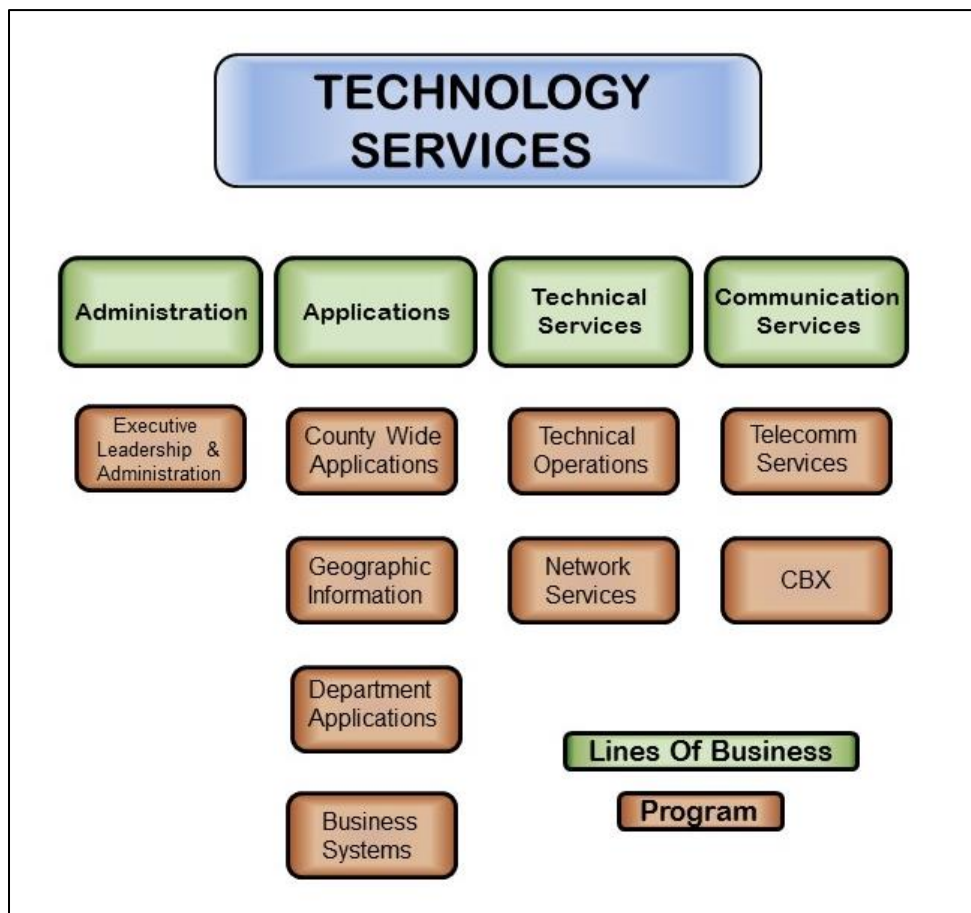
Given the results of the latest MFR process and the quality of the plan, it is obvious that the updated TS Strategic Plan is much better than the original and more in alignment with the County Performance Goals and the TS Road Map. While a full MFR process may not be required in all departmental situations, it proved to be a success for Technology Services in producing a more valuable, accurate and usable Strategic Performance Plan.

Technology Services is enthusiastic and motivated with the whole Performance Clackamas / MFR process and looks forward to continuing the development of both the MFR methodology and utilization in TS business functions. This continued evolving approach to performance measurements, especially with the inclusion of the TS Road Map, budget development and overall service delivery, will greatly enhance Technology Services’ ability to deliver and measure quality technology services.

Mission Statement

The mission of the Technology Services Department is to provide high quality, innovative and cost-effective technology to the public, BCC and county staff so they can provide and receive county services.

Department Structure



Issue Statements

1. **Diverse Workforce**

Sustaining a diverse workforce at all levels in the Technology Services Department, which if addressed, will result in:

- Increased accessibility and enhanced relationships with departments
- Innovative and nimble workforce to better meet customer needs
- Improved communication throughout the organization

2. **Increasing Demand for 24/7 Services**

The increasing demand for secure always-on access to systems and applications, if not addressed, will result in:

- Inconsistent access to resources leading to reduced productivity
- Unauthorized copying, transfer, or retrieval of data
- Increasing security risks by using unapproved solutions as a work around
- Exposes departments to financial penalties, litigation, or loss of access to data

3. **Lack of understanding of business needs of County**

The lack of Technology Services' understanding of customer department business needs, if not properly addressed, will result in:

- Procurement or development of duplicate or poorly matched systems
- Departments deploying technology solutions incompatible with county systems which result in less efficient and less effective service delivery to their customers
- Departments using their resources for unaligned technology instead of department initiatives
- Missed opportunities for finding efficiencies and workflow improvements
- Diminished ability to share data and integrate with other Department systems
- Departments not satisfied with Technology Service services

4. **Lack of enforceable policies**

The county's continued lack of clear and enforceable policies regarding technology and its use by departments, if not addressed, will result in County Departments experiencing:

- Inconsistent technology deployment and decision making processes

- Unplanned disruption of services
- Increased risk of non-compliance with required practices, which could result in sanctions or litigation
- Reduced efficiencies and increased costs to delivering services to customers

5. Inter-Departmental Communication

The continuing lack of consistent, timely, thorough communication between Department of Technology Services and county departments if not addressed, will result in:

- Inefficient utilization of technology resources causing increased cost
- Departments being uninformed of technology issues, trends, and training
- Unplanned disruption in services
- Reduction in strategic collaboration between Technology Services and other departments
- Reduction in the utilization of technology services to support county department business needs

6. Technology Services Strategic Role

The increasing scope and dependency on technology by the county along with the lack of authority by the CIO to enforce policy, if not properly addressed, will result in:

- Increasing number of department-specific solutions versus enterprise solutions
- Increasing and unnecessary costs of technology solutions
- Exposure of the county to security risks and violation of Federal/State regulations
- Higher level of risk for project/technology failures
- Lack of technology project prioritization
- Lack of consistent County Technology Strategic Plans
- Underutilization of technology services in the effective support of county business

7. Lack of Strategic Planning

The lack of Technology strategic planning, if not addressed, will result in:

- Difficulty developing multi-year budgeting for strategic technology investments
- Department expenditure for technology will not align with a county technology strategic plan and budget
- County technology strategic plan will not be in alignment with individual department strategic technology plans

- Reduction in the ability of Department of Technology Services to support customer success including MFR objectives, which will result in dissatisfied department customers
- Increased duplicative systems
- Increased costs and reduced inter-operability
- Reduction of coordinated solutions

Strategic Results

1. **Diverse Workforce**

Departments will receive services from a diverse Technology Services workforce that reflects our community as evidenced by:

- By 2025 the demographics of local high school and college graduates will reflect the demographics of new technology staff at all levels.
(Executive Leadership & Administration)

2. **Cyber Security**

Services will be available to departments allowing them to work securely, as evidenced by:

- By 2022, < 8 % users will fall victim to phishing test emails.
(Executive Leadership & Administration)
- By 2021, the County will be monitoring security compliance utilizing approved methods such as audits, assessments and testing including the Nationwide Cybersecurity Review
(Executive Leadership & Administration)
- By 2022, 98 % employees will have completed security awareness training and compliance training.
(Executive Leadership & Administration)

3. **Inter-Departmental Communication**

Departments will experience a working partnership with Technology Services characterized as collaborative, supportive, highly communicative, and trusting, as evidenced by:

- By 2022, every department will receive annual proactive Technology Services recommendations to more effectively identify technology solutions aligned to their technology plan
(LOB: Applications / Technical Services / Communications)
- By 2022, Technology Services will have an annual technology review with each department to create / update the department's technology training plan
(LOB: Applications)

- By 2022, 75% of Departments “Agree” that Technology Services understands their business needs and is proactively providing technology solutions.

4. Strategic Planning

Departments and Technology Services will work together to position the county to successfully anticipate, plan, and budget for technology well into the future as evidenced by:

- By 2022, Department of Technology Services will lead the development of an annually updated county wide Technology Plan in coordination with departments and their technology plans
(Executive Leadership and Administration)
- By 2023, with assistance from Technology Services, all departments will develop individual Technology Plans that align with the county wide Technology Plan and approved by CIO.
(Executive Leadership and Administration)
- By 2023, with assistance from Technology Services, all departments will develop individual technology budgets aligned with the county wide Technology Plan and approved by CIO.
(Executive Leadership and Administration)
- By 2021, County wide technology policies will be developed and approved by the CIO and county administration.
(Executive Leadership and Administration)

5. Clackamas Broadband eXchange (CBX)

The Clackamas Broadband Exchange initiative will be successfully implemented as evidence by:

- By 2020, Business Plan for CBX will be approved by the Board of County Commissioners.
(Clackamas Broadband eXchange)
- By 2021, five partnerships with public and private organizations will be established.
(Clackamas Broadband eXchange)
- By 2021, CBX access will expand to two contiguous counties.
(Clackamas Broadband eXchange)
- By 2022, five private sector partners will purchase access to CBX’s redundant connectivity to the internet. (Clackamas Broadband eXchange)

Lines of Business

Administration Line of Business

The purpose of the Administration Line of Business is to provide strategic technology, policy, planning and operational support services to Technology Services staff so they can support county departments in effectively utilizing technology resources in the performance of their jobs.

Programs:

- Executive Leadership and Administration

Key Results:

- By 2021, Technology Services will develop a comprehensive County Technology Policy Manual that covers all Technology Policies, Best Practices and Procedures.

Executive Leadership and Administration Program

The purpose of the Executive Leadership and Administration program is to provide strategic technology policy, planning, and operational support services to Technology Services staff so they can support county departments in effectively utilizing technology resources in the performance of their jobs.

Results:

- 90% of surveyed respondents who say that they agree that they have the necessary support from Technology Services to effectively utilize technology resources in performance of their jobs.
- By 2022, < 8% users that fall victim to phishing test emails.
- By 2022, 98 % employees will have completed security awareness training and compliance training.
- By 2023, Technology Services will develop a county-wide Technology Plan that includes individual Department plans.
- By 2021, County wide Technology policies will be developed and approved by the CIO and County administration
- By 2022, 75% of Departments “Agree” that Technology Services understands their business needs and is proactively providing technology solutions.

- % TS (FTE) staff that have a current Performance Reviews

Outputs:

- # Annual Technology Plan review sessions conducted with departments

Services: Listing begins on page 24

Applications Line of Business

The purpose of the Applications Line of Business is to provide business analysis, application development, data, geospatial and application integration, software installation and maintenance services to county departments and the public so they can utilize technology to make informed business decisions, have timely and reliable access to the information to share with their customers and to achieve desired results.

Programs:

- County-wide Applications
- Department Applications
- Enterprise Business Systems
- Geographic Information (GIS)

Key Results:

- 95% of customers surveyed who reported they were able to get answers they were seeking.
- 99% of GIS data layers updated to established customer specifications.
- By 2022, Departments and Technology Services will annually assess the department's technology training needs.
- By 2021, every Department will annually receive proactive Technology Services recommendations to more effectively identify technology solutions aligned to their technology plan relative to application services.

County-wide Applications Program

The purpose of the County-wide Applications program is to provide County-wide infrastructure, business analysis, application development, installation, maintenance, and integration services to the county organization so it can utilize technology to realize increased efficiencies to better meet its business objectives.

Results:

- % County-wide projects where the pre-established objectives are met as defined in the project scope of work.

Outputs:

- # Applications developed or upgraded. (Target: 10*)
- # Total (non-MS Office) applications supported. (Target: 55*)

Efficiencies:

- \$ Average program expenditure per supported application. (Target: \$31,000*1)

Services: Listing begins on page 25

Department Applications Program

The purpose of the Department Applications program is to provide department specific business analysis, application development, installation, maintenance, and integration services to county departments so they can have reliable and timely access to their information to share with their customers and use to achieve their results.

Results:

- 80% of High priority requests completed within one hour
- Estimated % of uptime for major supported systems w/o upgrades or emergencies.

Outputs:

- # Supported department business analyses or reports annually (Target: 30*)
- # Supported major department applications.

Efficiencies:

- \$ Program expenditure per supported department application. (Target: \$8,000*3)
- **Services:** Listing begins on page 26

Enterprise Business Systems Program

The purpose of the Enterprise Business Systems program is to provide human capital management and financial management system services to Human Resources and Finance so they can provide their county-wide administrative services.

Results:

- 99% Enterprise Resource Planning (ERP) system uptime.

Outputs:

- # New major business system features provided. (Target: 5)

Efficiencies:

- \$ Program expenditure per power user of the Finance System based on the # of power users.
- \$ Program expenditure per power user of the HR System based on the # of power users.
- \$ Program expenditure per power user of the HR Employee Self Service system based on the # of power users.

Services: Listing begins on page 26

Geographic Information (GIS) Program

The Purpose of the Geographic Information (GIS) program is to provide enterprise geospatial mapping solutions and data services to county departments, residents, businesses and other agencies so they can utilize current and accurate county geospatial data to make informed decisions.

Results:

- 95% Web map application data updates completed per maintenance update schedule.
- 95% Customers who say they are happy with the service they received.

Outputs:

- # GIS data layers supported. (Target: 100*)
- # County department GIS users supported. (Target: 200*)

Efficiencies:

- \$ Program expenditure per GIS data layers supported. (Target: \$14,000*2)

Services: Listing begins on page 25

Technical Services Line of Business

The purpose of the Technical Services Line of Business is to provide reliable and secure technical infrastructure and customer support services to county departments and partner agencies so they can utilize technology resources to conduct their business.

Programs:

- Technology Operations
- Network Services

Key Results:

- Less than 343 Hours of unplanned downtime which affects customer activity during normal business hours.
- Less than 95% Priority 1 Helpdesk requests responses delivered within 4 hours
- By 2022, % of Departments who have an annual technology plan review.
- % of Departments who have an annual technology plan review.

Technology Operations Program

The purpose of the Technology Operations program is to provide technical support, enterprise systems infrastructure, and technology asset services to county departments and partner agencies so they can efficiently utilize county supported technology resources to serve the public and conduct the county's business.

Results:

- 99% Priority 1 help desk requests responses delivered within 1 day.
- 90% New acquisition / request responses delivered within 3 days.
- 95% Critical service outages of primary systems resolved within 3 days.
- % Average response time to service requests during Business Hours.

Outputs:

- # Call center resolutions. (Target: 13,000*)
- # Technology consultations and purchase orders. (Target: 550*)

Efficiencies:

- \$ Average Call Center expenditure per county allocated employee. (Target: \$1,350*⁵)
- \$ Allocated costs per PC (tier 1).
- \$ Estimated Annual Technical Operating Costs per Allocated User w/o Maintenance or Reserves.

Services: Listing begins on page 27

Network Services Program

The purpose of the Network Services program is to provide wired, wireless, and remote access connections and network security services to county departments and partner agencies so they can reliably utilize county applications and data resources to conduct their business.

Results:

- 0.5% Unplanned downtime which affects customer activity.

Outputs:

- # Network support request resolutions. (Target: 200*)
- # Supported network infrastructure devices not including traffic. (Target: 180*)
- # Wireless network access points. (Target: 280*)

Efficiencies:

- \$ Program expenditure per connected user annually. (Target: \$340*⁶)
- \$ Program expenditure per connected device annually. (Target: \$230*⁶)

Services: Listing begins on page 27

Communication Services Line of Business

The purpose of the Communication Services Line of Business is to provide telecommunications and fiber optic services to county departments and external agencies so they can meet their business communication requirements.

Programs:

- Telecommunication Services
- Clackamas Broadband eXchange

Key Results:

- 99% Days where there are no service interruptions to core telecomm servers excluding scheduled maintenance.
- By 2022, every Department will receive annual proactive Technology Services recommendations to more effectively identify technology solutions aligned to their technology plan related to telecomm services.

Telecommunication Services Program

The purpose of Telecommunication Services program is to provide desktop & cellular telephone, two-way radio, audio video communications, security electronics, emergency notifications systems, and communications systems design, implementation, and support services to county departments and other agencies so they can experience reliable communications and work within a secure environment.

Results:

- 99% Days where there are no interruptions to core voice systems.
- 99% Days where there are no interruptions to the core video surveillance systems.
- 99% Service requests responded to within 2 hours or less.

Outputs:

- # Cellular devices supported. (Target: 900)
- # Video surveillance devices supported (non-traffic). (Target: 800)
- # Radios supported. (Target: 300)
- # Telecom lines supported. (Target: 3000)

Efficiencies:

- \$ Program expenditure per connected user annually. (Target: \$340*6)
- \$ Program expenditure per connected device annually. (Target: \$230*6)

Services: Listing begins on page 28

Clackamas Broadband eXchange (CBX) Program

The purpose of the Clackamas Broadband eXchange (CBX) program is to provide fiber optic design, installation and maintenance services to County Departments and public and private entities so they can experience reliable, high-speed fiber-optic connectivity.

Results:

- By 2021, five partnerships with public and private organizations will be established.
- By 2021, CBX access will expand to two contiguous counties.
- % of service interruptions restored within 24hrs.

Outputs:

- # Miles fiber installed. (Target: 325)
- # Dark fiber connections established. (Target: 270)

Efficiencies:

- \$ Average Program expenditure per mile of fiber installed. (Target: \$2,400)
- \$ Estimated Annual savings for public institutions utilizing CBX excluding redundant connections.

Services: Listing begins on page 29

Glossary of Terms

The following definitions are of common key words and phrases used though out this plan.

***_** When used as part of a metric such as a Target value, this indicated this is a new value that is still be established therefore the value is a estimate based on available information and may be updated as more accurate information becomes available.

***#** When used as part of a metric such as a Target value, this indicated this is based on a calculation outlined in the section on CALCULATIONS.

Business: This refers the business functions and services of a customer as it relates to utilization of technology in the support and delivery of those business services.

Customer: Any individual or group who receives some level of services or support from Technology Services, or from a County Department as a result of services provided to the Department.

Intragovernmental Agreement (IGA): Similar to an SLA but between to government agencies. Specifies the details of an agreement, usually to provide services, between 2 or more agencies including deliverables, cost, and performance metrics.

Internet Service Provider (ISP): This is a business that delivers internet (broadband) services to local business and customers.

Issue Statements: A statement that summarizes the issues anticipated by Technology Services that will have a significant impact on customers and / or services over the next several years. This includes the issue description and, if unresolved, the projected impact on customers / services.

Line of Business (LOB): Group of related programs that provide a common service or result. Provides a broad organizational structure for grouping of services, measurements, and results.

Managing Results LLC: This is the name of the consulting firm hired by Clackamas County to lead the Performance Clackamas process with each of the departments.

Managing For Results (MFR): This is the name given by Managing Results LLC to the process of developing the measurements with the county to achieve the Performance Clackamas Plan and the resulting goals, principals and processes.

Performance Measures: A group of measurements / metrics that can be used to quantify / qualify a given performance measurement. Is composed of several types of measures:

- Result: Measures the degree of expected benefit to a customer
- Output: Measures the amount of service provided in quantifiable units
- Efficiency Measures expense or cost per unit output or result

Program: A subset of services under the Line of Business structure that further organizes related services and measurements with a more defined set of results or purpose.

Purpose Statement: A straight forward, simple and clear results-oriented statement (for either a Line of Business or Program) that defines the name, services, customer and results expected.

Services: Deliverables, items and / or services that program provides to customers

Service Level Agreement (SLA): An agreement between two departments or agencies that outlines the expected services and deliverables and associated costs. For TS this also specifies expected timetables, responses and other details related to service levels and performance.

Software Evaluation Group (SEG): Technology Services assessment team made up of key applications, infrastructure and management staff to review software related request to determine the appropriate action to take.

Strategic Result: The primary results the Technology Services Department must accomplish over the next 2-5 years to respond to the Issues identified, achieve the Results of the LOB / Programs and set forth a direction to continue the Performance Clackamas initiative process.

Technology Services (TS): The Clackamas County Department of Technology Services (TS). This plan's scope is restricted to just Technology Services.

To Be Determined (TBD): For those metrics (outputs, and efficiencies) that are part of the performance measures but not yet sufficiently tracked to provide adequate data.

Calculations

The following is information / process used to generate some of the calculations used in this plan for use in future adjustments and updates. These are noted by a “#”.*

These calculations utilize as much as possible the most up to date and accurate current values, such as program expenses, in the calculations. These values are used to help generate the values for the future targets.

NOTE: For purposes of program calculations, the program expenditure includes all FTE, FTE related support costs, allocated costs, non-capital and all other program/staff support related expenses EXCEPT for maintenance / reserves / contingency or other expenses as identified that are outside the scope of control for these metrics. (ie vendors, system support requirement etc).

***1 County Wide Applications**

Efficiencies \$ Average Program expenditure per supported and/or developed application

Calculation = (Program Expense) – (Non-inclusive Expenses) / # Applications

Fully loaded Expenses		Software Maintenance	
\$1,768,304	-	\$85,000	55
\$30,605.53			

***2 GIS**

Efficiencies \$ Average Program expenditure per GIS data layers supported

Calculation = (Program Expense) – (Non-inclusive Expenses) / # Data Layers

Fully loaded Expenses		Maintenance / Photos	
\$1,355,476	-	\$59,750	100
\$12,957.26			

***3 Departmental Applications**

Efficiencies \$ Average Program expenditure per supported department application

Calculation = (Program Expense) – (Non-inclusive Expenses) / # Applications or Reports

Fully loaded Expenses		Software Maintenance	
\$550,468	-	\$3,800	75
\$7,288.91			

*4 Business Applications

Efficiencies \$ Average Program expenditure per power user for FIN | HR | ESS

Calculation = (Program Expense) – (Non-inclusive Expenses) / FIN | HR | ESS

Fully loaded Expenses	Software Maintenance	
\$1,843,331	- \$557,905	266 180 2806

FIN = \$4,832.43 | HR = \$7,141.26 | ESS = \$458.10

*5 Technology Operations

Efficiencies \$ Average Call Center expenditure per county allocated FTE

Calculation = (Program Expense) – (Non-inclusive Expenses) / # Users (Network Output)

Fully loaded Expenses	Maintenance / Reserves / Capital	
\$3,745,261	- \$ Not included	2800

\$1,337.59

*6 Network

Efficiencies \$ Average Program expenditure per county allocated user

\$ Average Program expenditure per supported county allocated device

Calculation = (Program Expense) – (Non-inclusive Expenses) / # Network user | device

Fully loaded Expenses	Maintenance / Communications	
\$1,257,317	- \$309,516	2800 3300

User = \$338.50 | Device = \$287.21

List of Program Services

Executive Leadership and Administration Services:

- Accounts payments and receipts
- Annual departmental technology training plans
- Background checks
- Bi-Monthly technology contacts meetings
- Board of County Commissioners' meeting presentations
- Budget allocation model development, tracking and reports
- Budget analyses
- Budget and capital projections
- Budget proposals and reviews
- Budget reports
- Continuity of operations plans
- Contract review and approvals
- County technology policies
- Department strategic plan integrations
- Disaster avoidance and recovery activities
- Disaster recovery exercises
- Employee coaching and training sessions
- Employee onboarding and recruitments
- Employee performance reviews
- Interdepartmental communications and responses
- Issue resolutions
- Monthly department phone bills
- Quarterly department technology meetings
- Quarterly safety committee meetings
- Service Level Agreements (SLAs)
- Spending approvals
- Staff mentoring and evaluations
- Strategic technology multi-year plans
- Supply orders
- Technology audit administration and consultations
- Technology For Teaching non-profit donations
- Technology purchasing recommendations
- Technology Service departmental policies
- Weekly technology services managers meetings

County-wide Applications Services:

- Application life cycle maintenance
 - Reviews
 - Developments
 - Support
 - End-of-Life
- Applications, business consultations and workflows
- Applications Scope-of-Works
- Application project request responses
- Business analysis consultation reports
- Continuous life cycle maintenance
- County-wide alert-generated service responses
- Data analyses and designs
- Database design request responses
- Database warehouses
- Development platforms
- Document management business analyses
- Document retention and purges
- Document retrieval and display applications
- Integration designs and implementations
- Managed and supported enterprise databases
- Platform life cycle maintenance
- Report generation request responses
- Service and infrastructure administrations
- Software infrastructure and utilities
- System integration consultations
- Urgent level customer responses

Geographic Information Services:

- Aerial photos
- Data set creations
- Data set distributions
- Data set extractions
- Data layers updates
- Data set updates
- Geospatial analyses
- Geospatial data sets
- GIS address and data updates
- GIS data downloads
- GIS Integrations (with department applications)
- GIS responses and consultations

- Maps
- Storefront consultations
- Supported GIS infrastructures
- Web based GIS products and solutions

Department Applications Services:

- Custom document management and integrations
- Department application business consultations and workflows
- Department application consultations
- Department application cost analyses and reports
- Department application customer requests resolutions
- Department application optimization and integrations
- Department application patches and upgrades
- Department application set-ups
- Department application training sessions
- Department application tunings
- Managed and supported department specific databases
- Supported department applications
- Systems integration consultations
- Systems maintenance and alerts
- Vendor coordination and consultations

Enterprise Business Systems Services:

- Business system infrastructures
- Business system process analysis
- Business system strategic plans
- Business systems consultations
- Business systems project plans
- Business systems testing environments
- New business systems features
- Business systems feature updates
- Business systems vendor solutions
- County business applications governance committee
- Customer notifications
- Customer technical solutions
- Data integration projects
- Documentation packages
- Performance maintenance sessions
- Train-the-Trainer sessions

Technology Operations Services:

- Acceptable user policy signoffs
- Application diagnosis and reports
- Call center resolutions and reports
- Closed circuit security video actions
- County work stations and peripherals
- Data and systems backups and restores
- Data discovery reports
- Desktop patching and anti-malware processes
- Hardware installations and repairs
- Infrastructure systems performance adjustments
- Instructor led training classes
- Integration projects
- Maintained data centers
- Managed mobile devices
- On-Call and after hours system checks
- Online training documentation and videos
- Process automation workflows
- Security configurations
- Software acquisitions and deployments
- Storage infrastructure components
- System administration and maintenance procedures
- System architectural review and designs
- Systems status reports
- Technology assessment and specification consultations
- Technology asset reports
- Technology consultations and purchase orders
- Technology continuity of operations plan
- Technology device configurations
- Technology issue diagnosis and corrections
- Technology Services procurement annual license and maintenance renewal orders
- Technology specification standards
- Virtualization technologies

Network Services:

- Business requirements and consultations
- Connected devices
- Data center network connections
- Hardware install, repairs and configurations

- Inter-agency network coordination and consultations
- Internet connections
- Network and web filter configurations
- Network architectures
- Network continuity of operations plans (COOP)
- Network firewall configurations
- Network intrusion detection configurations
- Network multi-factor authentications
- Network support request resolutions
- Network threat analysis and resolutions
- Remote access connections (VPN)
- Wired network connections

Telecommunication Services:

- Building security system design, installs and repairs
- Business telecommunication requirements consultations
- Closed circuit video design, installs and repairs
- Custom 911 communications
- Customer support resolutions
- Emergency notification systems
- Fiber optic installations
- Licensing and maintenance renewals
- Long distance communications
- Long range strategic communication technology plans
- Mobile device reviews and solutions
- Overhead paging solutions
- Pagers
- Performance usage reports
- Procurement business consultations
- Service request responses
- Supported audio visual solutions
- System integrations
- Telecom, security, radio and mobile device procurements
- Telecomm Continuous of Operations Planning (COOP)
- Telecomm device installations, repairs and moves
- Underground utility locates
- Unified communication solutions
- Uninterruptable Power System (UPS) installs and repairs
- Video conferencing design, installs and repairs

- Voicemail solutions
- VoIP solution design, installs and repairs
- Wiring design and installations

CBX Services:

- 24/7 Maintenance sessions
- Business requirement consultations
- Clackamas Broadband eXchange (CBX) Continuity of Operations Plan (COOP)
- Dark fiber billable connections
- Economic development consultations
- Environmental assessments
- Federal, state and local regulation reviews
- Fiber network 24/7 monitoring alert responses
- Fiber optic asset system tracking and updates
- Fiber optic engineering, assessments, designs, and installation coordination's
- Fiber optic infrastructure management and assignments
- Franchise negotiations
- Inter-Governmental Agreements (IGA) contract and Service Level Agreements (SLA)
- Public entity and commercial invoices
- Strategic long term utilization plans
- Vendor coordination and communications