



**ARAPAHOE COUNTY**

# Technology Department Levels of Service

Board of County Commissioners

June 17, 2025

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# Current Service Levels and Resources

- *Applications/GIS/Custom Dev Support*
  - *Countywide Printer Services*
  - *Network, Telecommunication, Server, and Storage Services*
  - *Data Services*
  - *Digital Services*
  - *Desktop Services*
  - *Service Desk*
  - *Audio Visual & Facility Security*
  - *Project Management*
  - *Cyber Security and Compliance Services*
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# Current Service Levels and Resources

- *180+ applications supported and growing*
  - *12 Counties support on HSConnects, 60% case load statewide, 2,600+ Users*
  - *33 Network-Supported Locations*
  - *275+ Network Switches 250+ Wireless Access Points*
  - *Over 3000+ County computing devices*
  - *400+ Support Servers 40% cloud Hosted*
  - *700+ TB of County Storage supported*
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# Current Service Levels and Resources

## **GAPS and SHORTFALLS:**

- *Staffing levels to meet department/office project demand*
- *Cybersecurity toolsets to meet industry-recommended practices*
- *Technology Inflationary Costs*

## **Most Critical needs:**

- *Modernizing aged and unsupported Enterprise Applications*
  - *Infrastructure and Cybersecurity Investments*
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# Funding for “Have-to”

## Infrastructure Refresh – On Premise

- One-Time – Total 1.5M (\$1M - 2027 and \$405K – 2028)
  - Fund 70
  - If funded, we can move servers back on-premises for a lower cost.
  - If not funded, face market increases on cloud contract renewal at a higher cost
  - Have-to Priority # 1
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# Property Assessment and Taxation Program

- Total One-Time 2M    Y26 - \$433K, Y27 - \$433K, Y28 - \$649K, Y29 - \$866K, Y30 - \$908K (Total Ongoing: \$3.3M).
  - Capital Project with associated Operational expenses.
  - If funded, the Assessor and Treasurer will be able to process property more efficiently and effectively, eliminating current system downtime and reducing the need for intensive resource allocation to keep it running.
  - If not funded, we keep the current system and tolerate delays, and potentially violate statutory requirements. Additionally, face the possibility of delayed tax collections and or loss of interest on past due taxes due to the system being unavailable.
  - Have-to Priority # 2
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# Emergency Notification Solution – Quick Alert

- 5-Year Total \$170,000 Year-over-Year Ongoing \$34,000
  - Operational Expenses
  - The county will be able to implement a comprehensive alerting system that reaches all users and buildings, including those currently lacking emergency communication capabilities, through various forms of alerts. This alerting system will notify employees and residents during an emergency, enhancing their safety while in County buildings.
  - If this is not funded, we have to accept the risk of not having a paging or alerting system for emergencies, as the current aging phone system must be replaced, and the new phone system does not function with those capabilities.
  - Priority # 3a
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## TEAMS Shared Device Phone Licenses- Phone System Project

- 5-Year Total \$185,000 Year-over-Year Ongoing \$37,000
  - Operational Expenses
  - The County will upgrade over 500 phones in shared workspaces, conference rooms, and critical areas like garages and safe rooms, which require shared device licenses for the MS Teams phone system to operate.
  - Without these licenses, these essential phones would be removed, significantly disrupting business processes and compromising employee safety.
  - Have-tos Priority # 3b
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## Protected Browsing and Remote Access Security

- Total One-Time \$96K      Year-over-year Ongoing \$87K (\$355K for 5 Years total)
  - Implementation costs with associated Operational expenses
  - Currently, we can only monitor users' web traffic while the users are on our network. This tool prevents access to malicious websites, reducing cyber threats such as phishing and malware, and ensuring a safer and more secure online environment for the County.
  - The County currently faces challenges in monitoring laptops off the VPN network. Without this software, users will be more vulnerable to cyberattacks. Additionally, without this software, users off our network can use County devices to engage in activities, legal and illegal, not aligned with the appropriate use of County devices.
  - Have-to Priority # 4a
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# Device Security Management System

- 5-Year Total \$592k Y26 - \$48K, Y27 - \$64K, Y28 - \$160K, Y29 - \$160K, and Y30 - \$160K
  - Operational Expenses
  - The County has taken advantage of a State grant to implement enterprise quality device security management. The funding for this grant will phase out in the coming years. The impact of Arapahoe continuing the funding is the continued support of a robust device security management system on our endpoint devices, significantly enhancing our cybersecurity posture. There is the possibility of the State continuing the grant, but we can not budget on those funds being available in the future
  - Without this funding, our endpoint devices would lack robust security management, leaving us vulnerable to cybersecurity threats. This would result in a weakened security posture and potential risks to the organization's systems and data
  - Have-to Priority # 4b
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# IT, HS, FFM, and DA Ticketing Software Replacement

- Total One-Time \$250K Year-over-year Ongoing \$275K (\$1.3M for 5 Years total)
  - Capital Project with associated Operational expenses
  - The current application that IT uses as our primary work management tool, and a group in the DA office and a group in HS use as a work management tool, is going to be end of life on 1/1/2027. This funding is critical to IT operations, as it tracks incidents, assets, and software licenses, among other things.
  - Without this funding, these three departments would be dependent on unsupported software and subject to a growing probability of outage, resulting in a massive loss in productivity.
  - Have-tos Priority # 5
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# New Content Management System

	Year 1	Year 2	Year 3	Year 4	Year 5
Granicus CMS (only)	\$70,593.00	\$75,534.51	\$80,822.29	\$86,479.45	\$92,533.02
Granicus CMS One-Time Implementation Fees	\$70,890.00				

- Implementation costs with associated operational expenses
- A customer relationship management (CRM) system is software designed to help large organizations effectively organize and manage interactions with both customers and potential customers. It enhances relationships, streamlines processes, and leverages customer data to deliver personalized experiences and improve overall constituent engagement. Additionally, it helps uncover communication gaps and optimizes routine interactions. However, due to the extensive number of resident and business touchpoints, implementing this approach would necessitate substantial change management efforts and financial investment.
- Have-to Priority # 6



## CARES (DA) Application Support

- 5-Year Total \$75k      Y26 - \$21K, Y27 - \$13K, Y28 - \$13K, Y29 - \$14K, and Y30 - \$14K
  - OPEX Expenses
  - The Colorado At-Risk and Elder System (CARES) supports the 18th Judicial District's Elder and At-Risk Unit by managing cases involving vulnerable adult victims. IT inherited this application when we took over supporting the DA. It is written on a platform that we do not have the skill set to support. Without funding for third-party support, the system risks becoming unusable due to future Salesforce updates, which would hinder the Unit's ability to effectively investigate and track cases.
  - Have-to Priority # 7
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# Door Controller Replacements

- Total One-Time \$491K
  - Capital Project – Fund 70
  - The current door controllers are at the end of their lifecycle and are no longer supported, posing a significant security risk to County facilities in the event of controller board failure. This proposed upgrade would help prevent extended downtime and reduce vulnerability during a failure while waiting for replacement components.
  - Have-to Priority # 8
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## Avigilon Camera Replacements

- Total One-Time \$274K
  - Capital Project – Fund 70
  - Replace 130 security cameras that are end of life and no longer supported. The County has some liability if these older cameras are not replaced, as there could be low-quality or no footage available in the event of a threat or crime. The 130 does not include any for the Sheriff's Office.
  - Have-to Priority # 9
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## Digital Accessibility Media Remediation Fund

- 5-Year Total \$200k Y26 - \$100K, Y27 - \$25K, Y28 - \$25K, Y29 - \$25K, and Y30 - \$25K
  - Operational Expenses
  - In accordance with HB21-1110 and Section 508, the County's Digital Accessibility Roadmap utilizes on-demand remediation, content management systems, and application assessments to remove digital barriers and guarantee equitable access for all residents.
  - To not fund this initiative would put the dependency on each department to come up with the funding for remediation independently outside of IT.
  - Have-to Priority # 10
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## Assessor's Data Import Program – Just Appraised

- Total One-Time \$65K Year-over-year Ongoing \$95K (\$475K for 5 Years total)
  - Implementation costs with associated Operational expenses
  - Just Appraised is a program that automates the import of deed data into the Aumentum system, significantly reducing manual input errors and saving time for the Assessor's Office. This tool would alleviate workload strain, enabling the office to handle high volumes of deeds with fewer staff, thereby supporting retention and ensuring accurate property records.
  - Keep the current state and deal with data inaccuracy
  - Have-to Priority # 11:
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# Funding for “Shoulds”

## Camera Servers Replacements

- Each Year represents a different server replacement
  - Total Amount ( 1.9M ) Y26 - \$375K, Y27 - \$375K, Y28 - \$375K, Y29 - \$375K, Y30 - \$375K
  - Capital Project – Fund 70
  - Funding of this initiative would enable the replacement of very old and aging camera servers.
  - Failure to replace aging servers could result in server failures and loss of camera access/footage.
  - Should Priority # 1
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## AV & Security Systems Technician (FTE)

- 5-Year Total \$530K - 2026 Salary of \$100K with 3% increase Y27 – Y30
  - Operational Expenses
  - The AV/Security team, consisting of only 2 FTEs, currently supports 692 security cameras, 120 AV rooms, and over 1,000 door controllers. This load alone has proven to be too much for 2 FTE. Maintenance has fallen behind, and issues are slow to fix. Additionally, the Sheriff's Office has requested that IT take over management of their security camera system at the Detention Center.
  - Should Priority # 2
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## Project Implementation Capacity Increase (3 FTE)?

- 5-Year Total \$1.9M - 2026 Combined Salary of \$375K with 3% increase Y27 – Y30
- Operational expenses
- The results of the IT Steering Committee's IT portfolio work resulted in six out of nineteen projects not being moved to approved due to a lack of IT capacity. Additionally, increasing demand from Public Health and PWD (Public Works Department) to make rapid changes within their core enterprise applications is happening with no or little IT involvement. Each year, during project portfolio planning, it becomes clear that many of their requests cannot be scheduled due to competing priorities, including core technology modernization efforts led by the IT department and other cross-department initiatives. As a result, some requests simply cannot be addressed within a given project cycle. This leads these departments to attempt to implement solutions on their own, effectively bypassing IT's governance and process controls.
- By not funding this, IT is unable to implement technologies that increase County employees' efficiency and or improve County services.
- Should Priority #3



## East/West/Arapahoe Room AV Display Improvements

- Total One-Time \$495K
  - Capital Project
  - This project will modernize the outdated A/V equipment in Arapahoe's three public meeting spaces, replacing technology like the nearly unusable projection screens in the East Hearing Room. The number includes construction on the two rear projector walls in the East Hearing Room, but no other room remodeling.
  - Without this funding, we will be required to continue to use older displays that are hard for our citizens to read. At some point, we will experience a hardware failure and be forced to replace systems with supplemental or other un-budgeted funding resources.
  - Should Priority # 4
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# Document Management System

- Total One-Time \$150K      Year-over-year Ongoing \$50K starting in 2027(\$200K for 4 Years total)
  - Capital Project with associated Operational expenses
  - A document management system centralizes an organization's documents, providing a secure, searchable repository for electronic files with features such as signatures, workflow and retention. Our current state is a small, in-house-built system that only works for a few business processes. This allows for a robust document storage and workflow on a County wide basis.
  - The impact of not funding this is that we continue to store documents in a variety of tools, from team sites, network shares, and SharePoint, with no document workflow.
  - Should Priority #5
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# Microsoft User / System license Upgrade

- Year-over-year Ongoing \$360K (\$1.4M for 4 Years total)
- Operational expenses
- This funding would upgrade our licensing from E3 to E5 (there is no E4). Microsoft 365 E5 provides comprehensive security, compliance, analytical capabilities, and additional end-user functionality. E5 offers a bundled solution that can help reduce costs by minimizing the need for additional third-party security and compliance tools. Potential 3rd party savings of up to \$425K while providing additional tools.
- Without this funding, we continue to purchase disparate 3rd party tools at a higher cost and buy one-off Microsoft licenses for functionality needed by individual users, such as Microsoft's AI client Copilot.
- Should Priority #6



## DA Revere Office Connect to Centennial Fiber

- Total One-Time \$28K
  - Operational expense
  - By investing in a connection to the County's fiber network via Centennial's backbone, the DA Revere Office can replace its costly third-party network service. This upgrade provides greater network capacity and bandwidth, saving an estimated \$192,000 over 20 years.
  - Without this funding, we will continue to depend on third-party network providers, with lower capacity, and be subject to their market increases.
  - Should Priority #7
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## Securing Network Physical Ports

- Total One-Time \$50K    Year-over-year Ongoing \$18K (\$90K for 5 Years total)
  - Capital Project with associated Operational expenses
  - A Network Access Control (NAC) solution will provide the capability to protect all wired network ports in all County buildings. Without this protection, anyone who has physical access to network wall jacks can plug in a device that can access and scan the County network. This solution addresses a critical network vulnerability and significantly improves our cybersecurity posture by blocking unauthorized access.
  - Should Priority #8
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# Mobile Device Management and Patch and Protect

- Total One-Time \$12K
  - Year-over-year Ongoing \$214K (\$1.07M for 5 Years total)
  - Operational expenses
  - By funding this, the County will streamline endpoint security by ensuring devices are configured, updated, and compliant, reducing vulnerabilities and strengthening cyber defenses across the County.
  - Without this funding, we will continue to use the tools we have today for cyber protection. This opens us to an increased risk of insecure or under-secured devices.
  - Should Priority #9
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## Microsoft's Generative AI tool - Copilot

- Year-over-year Ongoing \$128K (\$512K for 5 Years total)
  - Operational expenses
  - Generative AI will significantly boost the workers' productivity and efficiency. AI will help automate time-consuming tasks like drafting emails, summarizing long documents, or generating reports. It will also help us find information faster and create better content, like presentations, making everyone's work more impactful and less tedious. This would cover 400 users across the County.
  - Without this funding, we will continue to work using the tools we have now.
  - Should Priority #10
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# Accessibility Compliance Testing Tools

- Year-over-year Ongoing \$12K (60K for 5 Years total)
  - OPEX expenses
  - Testing software that evaluates web-based sites to ensure compliance with state statutes for software that meets WCAG 2.x standards for accessibility. Our development team will use these licenses to validate the compliance of internally developed applications.
  - Without this funding, it will take longer to test for accessibility compliance and require our staff to have a greater knowledge of the rules
  - Should Priority #11
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# Data Cataloging Tool

- Year-over-year Ongoing \$10K (50K for 5 Years total)
  - OPEX expenses
  - This tool acts as a central hub for understanding all our data. It helps us quickly search for specific information, discover what data we have available, and know how to use it effectively. This means less time wasted searching and more time making smart decisions.
  - Without this funding, it will take longer to integrate existing data into our enterprise data repository, and it will be harder for users to find the data they need in the repository.
  - Should Priority #12
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# Webex Contact Center Professional Services for County-wide Migration

- Total One-Time \$140K
  - Capital Project
  - This is the replacement of our current call center product that we are using short term temporary licenses to access. Due to resource constraints and a lack of subject matter expertise, migrating to the new Webex contact center will take 12+ months. This delay significantly diminishes the Webex solution's value, holding back key features and functionality for our call centers and customers.
  - Without this funding, it will take longer to roll out the new call center to all Offices and Departments. Additional new communication functionality would not be available for an additional year or more.
  - Should Priority # 13
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# Funding for “Could’s”

## Modern (Unified) Communication Platform

- Total One-Time \$150K      Year-over-year Ongoing \$50K (\$250K for 5 Years total)
  - Capital Project with associated Operational expenses
  - This request is an enhancement to the County’s communications solution. This would offer features that the WebEx Contact Center does not have. Unified Communications (UC) systems combine voice, video, messaging, email, and other communication methods into a single platform. This type of system will give our residents the ability to interact with the County in their preferred method while allow staff to deploy more efficient means of communication.
  - Without this funding, we will continue to utilize the communication tools we have.
  - Could Priority #1
-



## Upgrade DA workflow automation connection to Colorado DA Council's software

- Total One-Time \$30K
  - OPEX expenses
  - Partnering with CDAC to develop an Action API to enable automation of daily and other frequent tasks. Today, these are being done via unstable screen scraping applications and complex process flows to generate letters, perform data entry, and produce reports. These solutions were developed with the DA prior to the DA integration into ACG.
  - Without this funding, we will need to continue to spend time working on break-fix efforts. There is no way to make screen scraping a stable solution.
  - Could Priority #2
-

## Jr. Network Engineer FTE

- 5-Year Total \$664K - 2026 Salary of \$125K with 3% increase Y27–Y30
  - Operational expenses
  - The County's contact center and telephony environment consists of over 3,000 users, 400 call center agents, and processes over 2M calls per year. There is insufficient resource capacity and subject matter expertise to implement advanced features, automation, and integration with other enterprise apps to drive innovation and efficiencies. Without additional staff resources, there is only enough capacity to maintain current capabilities.
  - Could Priority #3
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# Customer Relationship Management System (CRM)

- Total One-Time \$1M      Year-over-year Ongoing \$250K (\$1.2M for 5 Years total)
  - Capital and Operational expenses
  - A customer relationship management (CRM) system is software designed to help large organizations effectively organize and manage interactions with both customers and potential customers. It enhances relationships, streamlines processes, and leverages customer data to deliver personalized experiences and improve overall constituent engagement. Additionally, it helps uncover communication gaps and optimizes routine interactions. However, due to the extensive number of resident and business touchpoints, implementing this approach would necessitate substantial change management efforts and financial investment.
  - Could Priority #4
-

## Security Operations Platform

- 5-Year Total \$1.14M Y1 \$272K, Y2 \$272K, Y3 \$272K, and Y4 \$330K
  - Operational expenses
  - To effectively manage the County's vast log volume, a SIEM is essential. It centralizes analysis for real-time threat detection, enables faster incident response, and improves compliance across the enterprise.
  - Without this funding, we continue with manual log checking, which is only done after the fact to determine what caused an issue.
  - Could Priority #5
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## Improved Server Auditing

- Year-over-year Ongoing \$55K (275K for 5 Years total)
  - OPEX expenses
  - This solution is for enhancing our cybersecurity posture by providing deep visibility into user activity, data access, and system changes. This enables proactive threat detection, simplifies compliance, and strengthens data protection across our entire IT environment.
  - Without this funding, we continue with the level of visibility and risk we have today.
  - Could Priority #6
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# County Wide Enterprise Password Manager

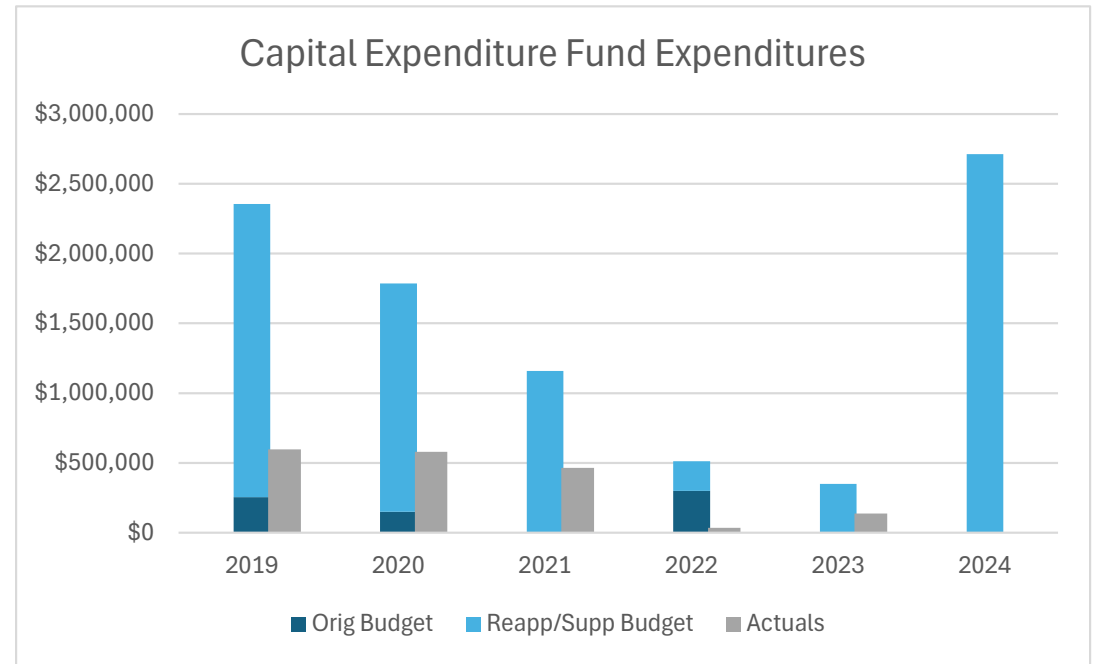
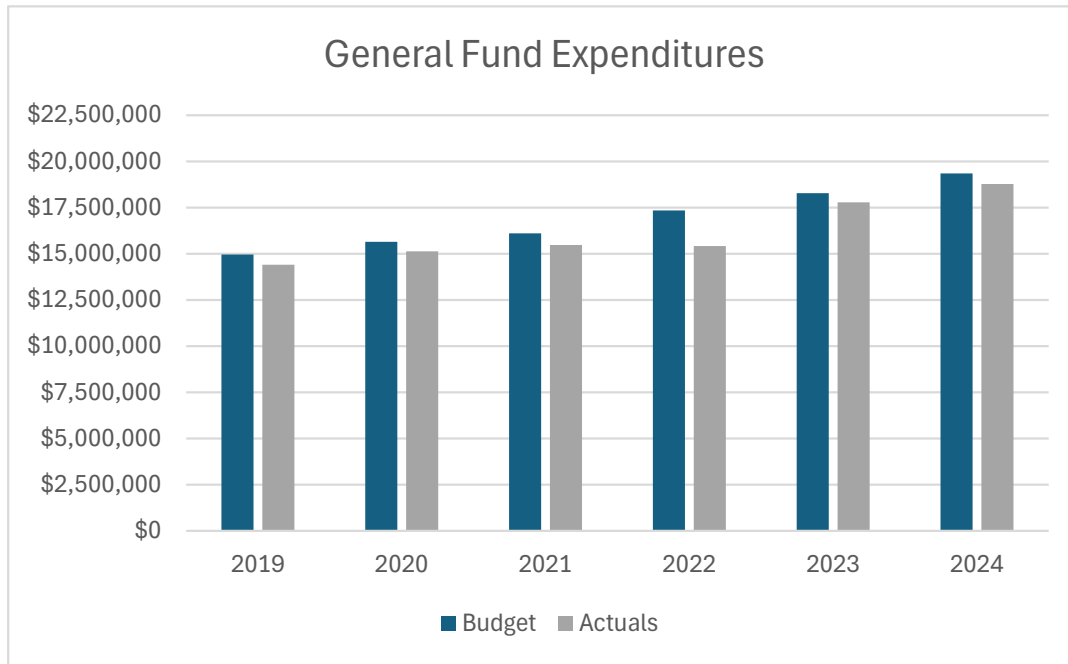
- Year-over-year Ongoing \$30K (\$120K for 4 Years total)
  - Operational expenses
  - A unified county-wide enterprise password manager centralizes credential management, reduces the risk of breaches from weak or reused passwords, and strengthens overall access security across departments.
  - Without this funding, users will continue to create and store passwords within their browsers or other means.
  - Could Priority #7
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# Security Group Management

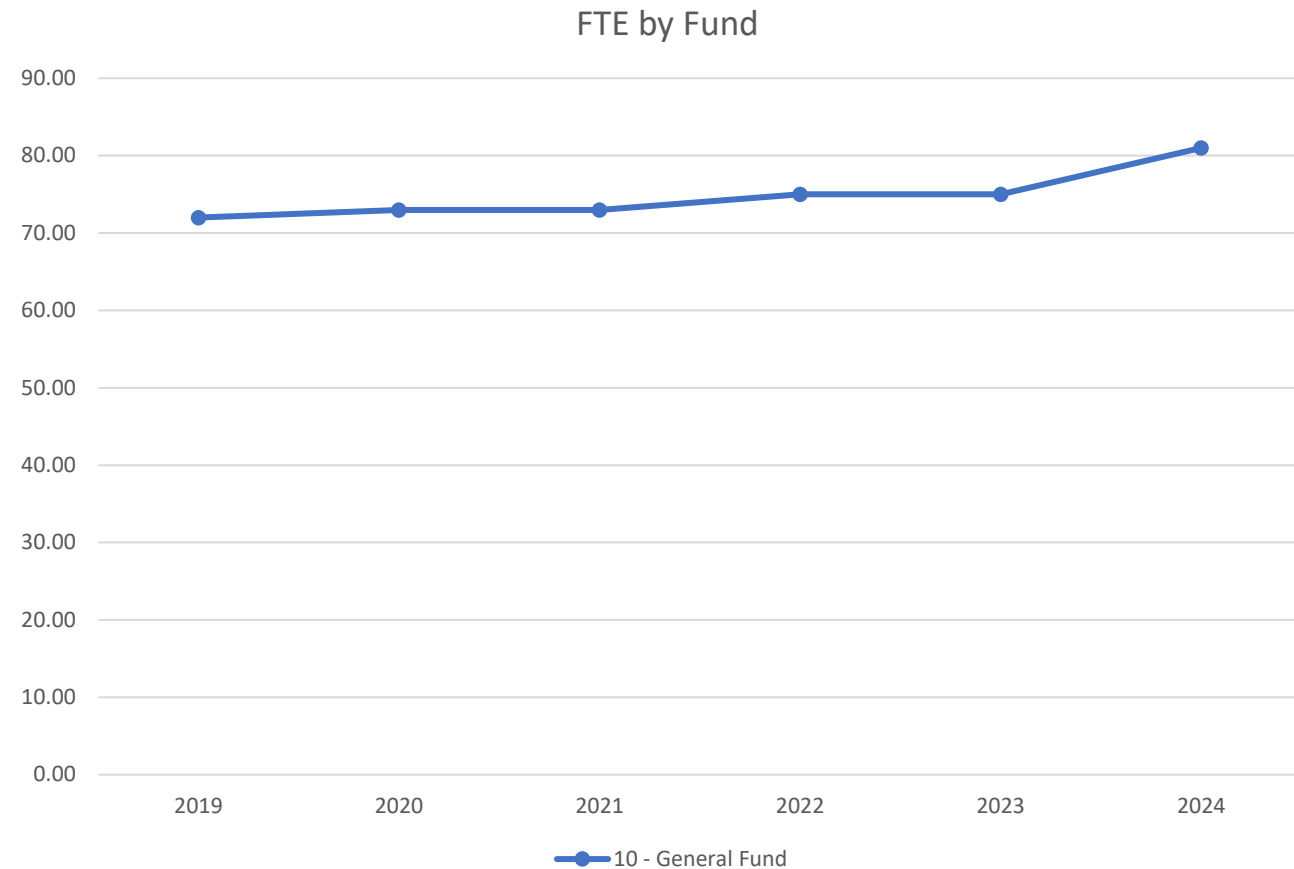
- Year-over-year Ongoing \$35K (175K for 5 Years total)
  - Operational expenses
  - This will allow Offices and Departments to manage group-based security access to files and applications through a much more user-friendly tool. Giving them control to make changes as they onboard and move people around.
  - Without this funding, Offices and Departments continue to use the limited tool they have now.
  - Could Priority # 8
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# Information Technology Look Back 2019-2024





# Information Technology Look Back 2019-2024





# Areas of Opportunity

- Create a technology modernization fund to be able to promote the advancement of county-wide enterprise technology.
  - More centralized budget and funding requests through the technology department.
  - Increase staff levels to meet department project demand.
  - Purchase security tools to prevent unauthorized applications from being introduced to the network and prevent digital compliance violations.
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# Challenges/Concerns

- *Decentralized technology funding process and spending*
  - *Technology shifting to Operational Costs*
  - *No dedicated financial fund for continued technology investment*
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