

Project Summary

Project Number:	10-240		
Project Title:	Citizen Experience Study - City Digital Content		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Study	Budget Year:	2020
Year Identified:	2020	Project Status:	Funded
Start Date:	7/1/2020	Region:	
Est. Completion Date:	7/30/2022		

Description:

This project will provide for a study to assess the current stakeholder experience interacting with the City via digital tools, providing the following: (1) inventory of touch points; (2) assessment that includes user adoption and satisfaction; (3) offline options for similar services; and (4) benchmarks and methods for measuring success of future initiatives.

The study will also include a style book for the City's digital services, including cross platform branding. The second year of the study will be a pilot program that will be identified as part of the assessment.

Justification:

A comprehensive assessment of stakeholder interactions is the first step in creating an environment where people can interact with their government at the time and place they choose with the fewest obstacles possible. Study data will be used to identify services that are responsive to existing needs with interfaces that are easy to use, clear in purpose, and efficient for both the City and the people using them. A branding and style book, created collaboratively with department input and following existing branding requirements, will guide development of new interfaces, ensuring the needs of the users, both internal and external, remain top of mind throughout the development process. A pilot project will test/validate the study outcome and provide opportunities for knowledge transfer.

Comments:

Interaction with the City requires stakeholders to access a variety of systems that are not integrated, which results in using multiple access points and maintaining multiple accounts and passwords. For example, the Treasurer's Office online bill pay system has separate systems for paying by credit card and check. Stakeholders can use this City system to pay a parking ticket online, but for all other pre-payable court offenses, they are required to use the separate State system to pay online.

Note: For the purpose of this document, stakeholders are defined as anyone who uses the City's digital products, including citizens, businesses, and City employees.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2021	250,000	250,000	0
2022	250,000	250,000	0
	500,000	500,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund			500,000		500,000
Total Revenue				500,000		500,000
Expense						
	Other			500,000		500,000
Total Expense				500,000		500,000
Obligated to Date:						0
						0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Project Number:	04-220		
Project Title:	City Fiber Optic Broadband Network		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Addition or Expansion	Budget Year:	2020
Year Identified:	2018	Project Status:	Funded
Start Date:	7/1/2017	Region:	
Est. Completion Date:	7/30/2020		

Description:

This project will develop a citywide fiber optic broadband and wireless solution for the City of Chesapeake. There will be an initial assessment to develop the master plan for this project. This project will create and architect a strong, diverse network with carrier grade mixture of fiber optic broadband and wireless infrastructure to improve emergency services as well as reduce start up and ongoing costs for the City of Chesapeake's enterprise operations while improving the overall economic landscape of the City.

Justification:

This project will help the City control operating costs. The project will benefit City residents, visitors, and businesses as well as City operations through competition by multiple providers. The project will also allow the City to participate in the regional broadband efforts. Additionally, the deployment of a municipal open access middle-mile infrastructure will serve to attract new businesses while offering tangible incentives for existing businesses.

Comments:

The City of Chesapeake has historically leased all of its network services at a significant expense to City operations. Economic development is hindered due to the limited competition within the City of Chesapeake for broadband installation and services.

On June 12, 2018, City Council approved an amendment to the FY 2019-23 CIP for substantive changes to this project's title, description, comments, and justification, which are now reflected in this project summary. The title has been changed to "City Fiber Optic Broadband Network" from "Broadband Wireless". See also City Council Agenda Item CM-8(F).

Project Forecast

Year	Total Expense	Total Revenue	Difference
2020	1,000,000	1,000,000	0
	1,000,000	1,000,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund	3,000,000	1,000,000			4,000,000
Total Revenue		3,000,000	1,000,000			4,000,000
Expense						
	Equipment	3,000,000	1,000,000			4,000,000
Total Expense		3,000,000	1,000,000			4,000,000
Obligated to Date:						162,803
						4.07 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Project Number:	06-220		
Project Title:	Citywide ERP Solution		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Renovation or Rehabilitation	Budget Year:	2020
Year Identified:	2018	Project Status:	Funded
Start Date:	7/1/2017	Region:	
Est. Completion Date:	6/30/2023		

Description:

This project will provide for a study for the consolidation of the City's operational management systems into one or two enterprise resource planning (ERP) systems, which will allow for more efficient utilization of resources. This project will also include an assessment of the City's existing legacy mainframe applications. Once the study and system design have been completed, this project will provide for the future implementation of the selected ERP solution(s).

Justification:

This project is needed because it is extremely costly to support so many separate systems. Additionally, all of the separate systems typically create challenges whenever the City has to upgrade integrated systems. Due to those challenges, upgrades often cannot be completed in timely manner and in some cases cannot be completed at all because one or more systems requires replacement.

Comments:

On June 12, 2018, City Council approved an FY 2018 Capital Budget amendment that added \$250,000 to this project to incorporate an assessment of mainframe applications into the overall assessment for an enterprise application. Funding was provided by an equal reduction of \$250,000 to the FY 2018 Operating Budget. See also City Council Agenda Item CM-9(D).

Currently, the City has roughly 80+ individual systems that support internal and external City functions. Some were created internally. Others were purchased externally. Some systems are hosted on premises, and others are hosted by 3rd parties. All of the systems across the City require some level of internal support from the Information Technology Dept. This project will be implemented in a phased approach. The study will be conducted first, and then the selected solution(s) will be implemented in future years over the span of several years. The total cost of this project is estimated to be up to \$10 million, which will be requested in a future budget cycle once the citywide ERP solution(s) have been identified.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2020			0
2023			0
2024			0
	0	0	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund	750,000			9,500,000	10,250,000
Total Revenue		750,000			9,500,000	10,250,000
Expense						
	Design & Engineering	750,000				750,000
	Software				9,500,000	9,500,000
Total Expense		750,000			9,500,000	10,250,000
Obligated to Date:						736,932
						7.19 %

Related Projects

Project Summary

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
2024	1,350,000	0.0
2026	1,350,000	0.0

Project Summary

Project Number:	11-240		
Project Title:	Citywide Security Assessment & Court Security Upgrade		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Study	Budget Year:	2020
Year Identified:	2020		
Start Date:	7/1/2019	Project Status:	Funded
Est. Completion Date:	7/30/2021	Region:	

Description:

This project will provide for a City-wide security assessment of all cameras, camera systems, video storage, and access control systems for the City of Chesapeake's facilities. Due to the critical need for courthouse security, this project will also replace the existing deteriorating cameras and door controllers in both the Juvenile & Domestic Relations (JDR) and General District Courts.

Justification:

In the past, each City department was responsible for procuring and administrating their own security camera and door card system. This has led to numerous contracts with multiple vendors. The different systems cannot talk to one another and the retention schedules are not known. During an incident, for situational awareness, public safety needs to have access to the cameras, which is not currently possible.

The General District and Juvenile Courts security systems are over 10 years old and antiquated. The current camera system is starting to fail and needs to be replaced immediately. Furthermore, the court room doors and access to the building lack proper control by the Sheriff's Deputies that protect the court buildings. Should a situation arise, the Sheriff's Department may need to lock down the building in its entirety or by sections as well as have cameras inside to monitor the situation.

Comments:

There are multiple types of cameras and door card systems throughout City facilities that need to be integrated. A review of all systems and their capabilities needs to be investigated. Developing a comprehensive plan with the goal of integrating all of these systems if feasible is needed. The current court security systems are exceeding their expected usefulness and need replacement so it does not negatively impact the City's ability to ensure public and employee safety.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2020	800,000	800,000	0
	800,000	800,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund		800,000			800,000
Total Revenue			800,000			800,000
Expense						
	Design & Engineering		275,000			275,000
	Equipment		525,000			525,000
Total Expense			800,000			800,000
Obligated to Date:						0
						0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
2022	79,000	0.0

Project Summary

Project Number:	12-240		
Project Title:	Data Center Equipment Replacement		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Replacement	Budget Year:	2020
Year Identified:	2020		
Start Date:	7/1/2021	Project Status:	Funded
Est. Completion Date:	7/30/2024	Region:	

Description:

This project will replace the enterprise data center equipment at the City's two data centers and will also replace hardware at various critical, remote locations throughout the City to ensure that City's computing and storage requirements are met. The equipment will be replaced with new hardware when the existing older hardware becomes out-of-date or reaches end-of-life.

Justification:

It is crucial that the City maintain its computing and storage infrastructure in order to continue City operations. By maintaining the data center infrastructure, the City can better serve citizens by giving them the ability to conduct business and interact with the City. Regularly updating to newer supported equipment also ensures the equipment is capable of supporting the new security upgrades or patches that vendors release. For most data center equipment, upgrades are required at regular intervals over a period of time (approximately five years).

Comments:

The typical equipment replacement cycle is three to five years. The new Public Safety Operations building had information technology and data center equipment installed during 2017-2018. After the building has been open for three years, this equipment will enter its replacement cycle, and full replacement will be needed after the building has been open for five years. The City's current data center and remote sites have been updated over the past few years, but this equipment also needs to be refreshed due to the replacement cycle.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2022	1,500,000	1,500,000	0
2023	1,500,000	1,500,000	0
2024	1,500,000	1,500,000	0
	4,500,000	4,500,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Cash - Lockbox City			4,500,000		4,500,000
Total Revenue				4,500,000		4,500,000
Expense						
	Equipment			4,500,000		4,500,000
Total Expense				4,500,000		4,500,000
Obligated to Date:						0
						0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
2023	400,000	0.0
2024	400,000	0.0

Project Summary

Project Number:	09-170		
Project Title:	Enterprise KRONOS Upgrade - Phase II		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	System Acquisition or Upgrade	Budget Year:	2020
Year Identified:	2013	Project Status:	Funded
Start Date:	7/1/2014	Region:	
Est. Completion Date:	6/30/2021		

Description:

This project will install and implement upgrades and new releases of commercial software used for the City's employee timekeeping and leave accrual systems.

Justification:

Kronos is constantly adding new functionality that is incorporated into new releases. As a new release becomes available, old releases are retired and no longer supported. This project will upgrade the Kronos application to the most current feasible version over the next five years.

Comments:

Funding was provided in FY 2017 and is scheduled for FY 2021.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2021	135,000	135,000	0
	135,000	135,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Cash - Lockbox City	135,000		135,000		270,000
	Fund Balance - IT	130,000				130,000
Total Revenue		265,000		135,000		400,000
Expense						
	Other	265,000		135,000		400,000
Total Expense		265,000		135,000		400,000
Obligated to Date:						0
						0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Project Number:	07-170		
Project Title:	Enterprise Wide Technology Improvements - Phase III		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	System Acquisition or Upgrade	Budget Year:	2020
Year Identified:	2013	Project Status:	Funded
Start Date:	7/2/2013	Region:	
Est. Completion Date:	7/30/2024		

Description:

This project is for software, infrastructure, and integration improvements needed to increase service reliability and improve enterprise business processes.

Justification:

This project addresses the ongoing need for software and infrastructure that is used Citywide. It will also ensure the availability of appropriate technology that can be supported by staff and vendors.

Comments:

For the FY 2020-24 CIP, the project plan was updated and funding was added to cover requirements for FY 2022, FY 2023 and FY 2024.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2022	250,000	250,000	0
2023	250,000	250,000	0
2024	250,000	250,000	0
	750,000	750,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Cash - General Fund Transfer	250,000				250,000
	Fund Balance - General Fund			750,000		750,000
	Fund Balance - IT	500,000				500,000
Total Revenue		750,000		750,000		1,500,000
Expense						
	Other	750,000		750,000		1,500,000
Total Expense		750,000		750,000		1,500,000
Obligated to Date:						686,837
						45.79 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Project Number:	11-210		
Project Title:	Fire - Tri-City Automatic Aid CAD Interface (Regional 911 Dispatch Interface)		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	System Acquisition or Upgrade	Budget Year:	2020
Year Identified:	2017	Project Status:	Funded
Start Date:	7/1/2019	Region:	
Est. Completion Date:	6/30/2020		

Description:

This project will provide for the City's participation in a regional 911 Dispatch interface to integrate the individual CAD systems of surrounding public safety jurisdictions into one central system.

Justification:

Using an integrated automatic system will reduce dispatcher call processing times, improve response times, and service delivery throughout the Southside Hampton Roads region. The regional interface will automatically allow emergency dispatchers to see the availability and status of units from surrounding cities and dispatch appropriate responses as necessary, building upon the current Tri-City Automatic Aid system recently implemented with Norfolk and Virginia Beach. This system will provide a redundant back up system for all area 911 dispatch centers in case of localized failures.

Comments:

Currently, each locality is unable to view or monitor the status of emergency response vehicles / apparatus from surrounding cities. If a locality requests automatic aid, dispatchers must manually contact the other dispatch center to request assistance creating delays in notifications.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2020	50,000	50,000	0
	50,000	50,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund		50,000			50,000
Total Revenue			50,000			50,000
Expense						
	Software		50,000			50,000
Total Expense			50,000			50,000
Obligated to Date:						0
						0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Project Number:	08-220		
Project Title:	Fire Station Alerting System		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	System Acquisition or Upgrade	Budget Year:	2020
Year Identified:	2018	Project Status:	Funded
Start Date:	7/1/2018	Region:	
Est. Completion Date:	6/30/2020		

Description:

This project will replace the current fire station dispatching alert system.

Justification:

This project is needed because the current alerting system technology has become out of date, requires a manual workaround, and is difficult to maintain and repair. The fire alerting system is the direct interface with the 911 computer aided dispatch (CAD) system, which transmits the emergency dispatch notifications to the fire stations and/or individual units.

The current system has a deficiency which requires a workaround. This workaround procedure is manually performed by the dispatcher, requiring an extra step in the 911 dispatch process. Additionally, it is difficult to find repair parts for the current system. The closest approved maintenance supplier for the current system is in northern Virginia, approximately four hours from the City of Chesapeake.

The latest generation of alerting technology provides digital sign boards, as well as audible notifications, to transmit the address and other pertinent information. As new fire stations are constructed, the latest generation of fire alerting systems will be the standard. This project will update the older stations with newer technology to ensure compatibility with the new stations as well as with the 911 CAD system.

Comments:

For the FY 2019-23 CIP Budget, \$100,000 of the total project funding was advanced to FY 2019 because Fire Stations #7 and #10 opened in FY 2019 and this funding was needed to outfit them with the new city-wide alerting systems in advance of their opening.

The current fire station dispatching alert system was purchased in September 2010. Alerting system technology has advanced since that time, and by 2020 the Fire Dept.'s system will be 10 years old. Replacement of the current system is also necessary because it requires a workaround with the new computer aided dispatch system. Although the current system does provide single station alerting, it does not allow for segregated alerts in fire stations with multiple units. The new system will replace the current system in all fire stations city-wide.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2020	1,400,000	1,400,000	0
	1,400,000	1,400,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund	100,000	1,400,000			1,500,000
Total Revenue		100,000	1,400,000			1,500,000
Expense						
	Equipment	45,000	665,000			710,000
	Software	5,000	30,000			35,000
	Other	50,000	705,000			755,000
Total Expense		100,000	1,400,000			1,500,000
Obligated to Date:						99,537
						6.64 %

Related Projects

Operating Budget Impact

Project Summary

Project Number:	13-240		
Project Title:	Fire/EMS - Mobile Data Terminal Replacements - II		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Replacement	Budget Year:	2020
Year Identified:	2020	Project Status:	Funded
Start Date:	7/1/2021	Region:	
Est. Completion Date:	7/30/2022		

Description:

This project will provide for the routine replacement of 60 mobile routers, 10 Rugged Mobile Data Terminals for Fire Marshalls (tablets), and communications hardware and software to allow communications from the apparatus to Emergency Dispatch and/or Medical facilities.

Justification:

Due to the rapidly changing requirements of cellular communication, replacement of communication devices will be required more frequently. We are anticipating a technology upgrade from 4G to 5G technology in the next 3 years. The tablet model is a commercial off the shelf computer that offers a much lower cost of ownership than the previous rugged laptops. Utilizing tablets with updated communications equipment will allow the Fire Dept. to continue using the mobile application that was specifically designed for the tablet model and is intuitively designed with the Firefighter location in mind. Staying with this brand of computers will allow the re-use of existing computer mounts already in the apparatus with fast, reliable, and cost effective mobile data terminals.

Comments:

In FY 2019, the Fire Dept. apparatus converted to using tablets that allow them to use a mobile software product. The tablet computers were purchased in FY 2019 to replace previous computers, and these models were selected to reduce the overall funding required to outfit the apparatus with information technology devices. These are lightweight devices that have a life expectancy of three to four years in this adverse environment, and need to be replaced at regular intervals. The peripherals used also require regular updates as technology continues to advance. Also, the Fire Marshalls require a rugged laptop (similar to the model used by Police Officers) because they work in extremely adverse environments and must take their laptops computers with them. A non-rugged laptop will not withstand these conditions.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2022	200,000	200,000	0
	200,000	200,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund			200,000		200,000
Total Revenue				200,000		200,000
Expense						
	Equipment			200,000		200,000
Total Expense				200,000		200,000
Obligated to Date:						0
						0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Project Number:	09-230		
Project Title:	Implementation of Enterprisewide Next Generation Identity Access Management		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	System Acquisition or Upgrade	Budget Year:	2020
Year Identified:	2019	Project Status:	Funded
Start Date:	7/1/2020	Region:	
Est. Completion Date:	6/30/2024		

Description:

This project will provide for the implementation of a suite of best of tools and technologies to fully implement Identity Access Management ('IAM', also known as 'IDAM') across the enterprise for the City of Chesapeake. This will significantly help with management of secure user authentication, user management, user authorization, and user access rights. These tools will further help the City with the Center for Internet Security (CIS) Critical Security Controls framework.

Justification:

As technologies continue to advance and we put more systems in the cloud and spread others across multiple sites in Chesapeake, the ability to fully manage user identities and control/track access to various systems becomes vital. The IAM market is changing rapidly right now and artificial intelligence along with machine learning is starting to significantly alter the technologies used and their capabilities. This project is expected to comprise a suite of products from multiple vendors. Gartner recommends looking at a best of breed approach for certain pieces of IAM but when implemented, there will be synergies that will pull together these tools into a full solution.

Comments:

Currently, the City primarily relies on an active directory to manage users and access, but this only works for a subset of our systems. Other systems rely on their own user databases. This fragmented approach prevents the ability to have a whole picture of Identity Access Management.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2021	100,000	100,000	0
2022	80,000	80,000	0
2023	50,000	50,000	0
	230,000	230,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Cash - Lockbox City			230,000		230,000
Total Revenue				230,000		230,000
Expense						
	Other			230,000		230,000
Total Expense				230,000		230,000
Obligated to Date:						0
						0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Project Number:	13-210		
Project Title:	Laserfiche Upgrade		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	System Acquisition or Upgrade	Budget Year:	2020
Year Identified:	2017		
Start Date:	7/1/2017	Project Status:	Funded
Est. Completion Date:	7/30/2024	Region:	

Description:

This project provides for ongoing upgrades to the City's document management system, Laserfiche.

Justification:

New features and functionality are included in these releases. As new version are released, old versions are retired and no longer supported. This project will upgrade Laserfiche to the most current feasible version.

Comments:

Additional funding of \$100,000 is planned for FY 2022 and again in FY 2024 to upgrade to the latest version. This type of upgrade is necessary every 18-24 months in order to keep the system current.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2022	100,000	100,000	0
2024	100,000	100,000	0
	200,000	200,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund	100,000		100,000		200,000
	Cash - Lockbox City			100,000		100,000
Total Revenue		100,000		200,000		300,000
Expense						
	Software	100,000		200,000		300,000
Total Expense		100,000		200,000		300,000
Obligated to Date:						0
						0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Project Number:	12-192		
Project Title:	Library - Automated Handling System - Phase III (Russell Memorial Library)		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Addition or Expansion	Budget Year:	2020
Year Identified:	2019	Project Status:	Funded
Start Date:	7/1/2019	Region:	
Est. Completion Date:	6/30/2022		

Description:

This project will provide for the phase III of this project, which will include the purchase, installation, and implementation of an automated materials handling (AMH) system at Russell Memorial Library.

Justification:

The Automated Materials Handling (AMH) system is designed to receive, check-in, and sort library materials for shelving. In 2014, the three busiest libraries circulated 1.7 million items, each of which was handled a minimum of five times by employees from the time the item was retrieved from the book-drop until it was replaced on the shelf to be checked out again by patrons. The AMH system will reduce the amount of time required by staff to manually perform these duties and allow staff time to perform other higher level essential tasks, which will increase efficiency. Materials will also be available more quickly for patrons. Similar equipment already exists at neighboring libraries.

Comments:

The first AMH system was installed at Central Library in 2015 and is in use (project # 12-190). The Library's AMH project plan included future phases to install AMH systems at Greenbrier and Russell Memorial libraries pending the successful review of the Central Library implementation. The review was completed and the process improvements were confirmed. The FY 2019-23 CIP included funding to install AMH at Greenbrier Library in FY 2019 (sub-project # 12-191) and Russell Memorial Library in 2020 (sub-project #12-192).

Project Forecast

Year	Total Expense	Total Revenue	Difference
2020	300,350	300,350	0
	300,350	300,350	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund		300,350			300,350
Total Revenue			300,350			300,350
Expense						
	Construction		100,000			100,000
	Equipment		200,350			200,350
Total Expense			300,350			300,350
Obligated to Date:						0
						0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Project Number:	06-200		
Project Title:	Library - Integrated Library System (ILS) Hosting		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Replacement	Budget Year:	2020
Year Identified:	2016	Project Status:	Funded
Start Date:	7/1/2019	Region:	
Est. Completion Date:	6/30/2020		

Description:

This project will transition the Library from an in-house hosted Integrated Library System (ILS) to a vendor hosted ILS to reduce the risk of failure and improve access to the Library's most important database. This project is intended to reduce costs of system hardware and risks associated with failure and disaster recovery capabilities. The Library has moved to a hosted online catalog solution, and intends to utilize a staff-facing client workflow solution as well. This project will complete all main components of an ILS.

Justification:

This project is needed because the security and integrity of the Library's ILS data is critical. Currently, the Library hosts an in-house server based ILS. This project is needed to migrate the current system to an externally hosted, cloud-based system. This transition will allow the Library to free up resources in use by the current system and provide extra security of customer data. This plan is in line with recommendations provided to the Library's IT unit by the City's IT Dept. during an internal audit.

Comments:

The Library requested quotes for vendor pricing to migrate from the in-house ILS to the cloud hosted ILS. The pricing was received in FY 2017, and it included the cost to change to the new system (which will be handled by this capital project) as well as the recurring maintenance for a 7 year period (which will impact the Library's annual operating budget). The sustainability of the increased operating expenses is being reviewed and will be submitted with the Library's operating budget.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2020	175,000	175,000	0
	175,000	175,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Cash - Lockbox City		175,000			175,000
Total Revenue			175,000			175,000
Expense						
	Software		150,000			150,000
	Other		25,000			25,000
Total Expense			175,000			175,000
Obligated to Date:						0
						0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
2021	40,000	0.0

Project Summary

Project Number:	10-220		
Project Title:	Library - Technology Upgrade/Replacement - Phase III		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Renovation or Rehabilitation	Budget Year:	2020
Year Identified:	2018	Project Status:	Funded
Start Date:	7/1/2019	Region:	
Est. Completion Date:	6/30/2022		

Description:

This project will provide for replacement of equipment and data center technology upgrades for the Library. This is Phase III of an ongoing project that will address the renewal and replacement needs of the Library's core data center processing, storage, and interconnection hardware platform. Additionally, the existing hardware will be used to create a testing infrastructure platform for the Library. Over the next five years, Phase III will replace the firewall, implement a backup solution, upgrade the Voice over Internet Protocol (VoIP) phone system, refresh the wireless access point, and upgrade the web security appliance.

Justification:

The Chesapeake Public Library system is one of the most technologically advanced libraries in the Hampton Roads area due to the City's investment in core infrastructure and technology. This project is needed to ensure that the technology offered remains first rate. As with all technology, the life-cycle replacement schedule is about five years. This project will replace the data center hardware installed in 2014 and modernize several functions of the library system. This project will also ensure the upgraded hardware will align with planned changes for project # 09-220 "Library-Data Center Redundancy/DIT Colocation", which will remove the need for a separate backup structure as the hardware/software platforms contain built-in backup, replication, and recovery capabilities.

Comments:

The Library currently uses a technology storage system with multiple storage tiers that will be moved to the Library's first test system. This will enable the City to update the core data center and use the existing investment in a safe, testing environment where failure is not a concern. Other systems that will be upgraded including the phone system, firewall, web security appliance, and wireless access points. The project timeline is planned as follows:

- FY 2020: Replace equipment at remote failover site with the same platform that will be used in the Library's core data center.
- FY 2021: Upgrade/ replace the Library's existing firewalls with modern equivalents to combat the continuously growing threat to data centers. Upgrade/ replace the phone system.
- FY 2022: Upgrade the Library's web security appliance and wireless access points (purchased in FY 2016) in order to continue providing this valued service.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2020	350,000	350,000	0
2021	160,000	160,000	0
2022	90,000	90,000	0
	600,000	600,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Cash - Lockbox City		350,000	250,000		600,000
Total Revenue			350,000	250,000		600,000
Expense						
	Equipment		300,000	100,000		400,000
	Software		50,000	60,000		110,000

Project Summary

Other		90,000	90,000
Total Expense	350,000	250,000	600,000
Obligated to Date:			0
			0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
2022	(13,320)	0.0

Project Summary

Project Number:	10-230		
Project Title:	Library Data Center Technology and Switching Replacement		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	System Acquisition or Upgrade	Budget Year:	2020
Year Identified:	2019	Project Status:	Funded
Start Date:	7/1/2022	Region:	
Est. Completion Date:	6/30/2024		

Description:

This project is designed to ensure that the Library's data center and switching gear is kept up to date and supported by the technology vendors. All Library data center technologies and switching gear requires replacement on a 5 year schedule to ensure full functionality and support.

Justification:

This project is needed to avoid end-of-life issues with unsupported equipment, and to ensure there is no downtime of Library Information Technology systems due to unsupported equipment.

Comments:

The technology being slated for replacement with this project will be installed in FY 2018 through the Library Switching and Routing Refresh project and Library Data Center redundancy/DIT co-location projects.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2023	600,000	600,000	0
	600,000	600,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Cash - Lockbox City			600,000		600,000
Total Revenue				600,000		600,000
Expense						
	Design & Engineering			5,000		5,000
	Equipment			550,000		550,000
	Software			45,000		45,000
Total Expense				600,000		600,000
Obligated to Date:						0
						0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Project Number:	11-220		
Project Title:	PeopleSoft Update Manager & PeopleTools Upgrade		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	System Acquisition or Upgrade	Budget Year:	2020
Year Identified:	2018	Project Status:	Funded
Start Date:	7/1/2018	Region:	
Est. Completion Date:	6/30/2024		

Description:

This project will provide for the additional resources needed to complete the planning, testing, and deployment of the updates in PeopleSoft Update Manager. The PeopleSoft Update Manager is the centralized upgrade tool in PeopleSoft. All system updates and new functionality are delivered by this tool.

Justification:

This project is needed because the City has specialized configurations and customizations within the PeopleSoft environment. Ensuring these settings are preserved will be essential to a successful upgrade. In order to have continuous access to vendor support, the City needs to use to the latest version.

Comments:

Additional funding of \$400,000 in planned for FY 2022 and again in FY 2024 to upgrade to the latest version. This type of upgrade is necessary every 18-24 months in order to keep the financial system current and to receive the yearly tax updates.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2022	400,000	400,000	0
2024	400,000	400,000	0
	800,000	800,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund			400,000		400,000
	Cash - Lockbox City	400,000		400,000		800,000
Total Revenue		400,000		800,000		1,200,000
Expense						
	Software	400,000		800,000		1,200,000
Total Expense		400,000		800,000		1,200,000
Obligated to Date:						0
						0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Project Number:	35-240		
Project Title:	Regional Broadband Ring		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Study	Budget Year:	2020
Year Identified:	2020	Project Status:	Funded
Start Date:	7/1/2019	Region:	
Est. Completion Date:	7/30/2025		

Description:

This project will provide for a design study in FY 2020 for regional and local broadband investments. Since this is a regional project, the Hampton Roads Planning District Commission (HRPDC) is coordinating the project with the participating localities.

Justification:

The City is working with neighboring localities to study improvements in the regional broadband capacity. This project will provide for regional (Southside) and local broadband investments and operating costs. The objectives include improved municipal services, but more importantly include improved capacity for economic development purposes. This project will enable the City to complete the design study during FY 2020. (Note: The City contributed \$150,000 from operating funds to the related HRPDC project in FY 2018.)

The estimated construction cost of \$20 million would be shared between four localities. Although the cost allocation to each city has not been established yet, the City of Chesapeake's share is estimated to be between \$4 and \$6 million.

Comments:

On June 25, 2019, City Council approved an amendment to the FY 2020-24 CIP that added this as a new project and appropriated \$160,000 for FY 2020. See also City Council Agenda Item CM-4(C).

Project Forecast

Year	Total Expense	Total Revenue	Difference
2020	160,000	160,000	0
	160,000	160,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund		160,000			160,000
	G.O. Debt - City				5,000,000	5,000,000
Total Revenue			160,000		5,000,000	5,160,000
Expense						
	Design & Engineering		160,000		5,000,000	5,160,000
Total Expense			160,000		5,000,000	5,160,000
Obligated to Date:						0
						0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Project Number:	14-210		
Project Title:	Replace Existing PBX Telephone System with VoIP		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Replacement	Budget Year:	2020
Year Identified:	2017	Project Status:	Funded
Start Date:	7/1/2018	Region:	
Est. Completion Date:	6/30/2021		

Description:

This project will replace the City's current PBX system, move all of the users (approx. 2,000) to Voice Over IP (VoIP) technology, and implement Unified Communications (UC) for many of those users.

Justification:

Moving all City users to one VoIP telephone system will enable users to operate on the most current technology and provide many features that will become even more important in conducting business over the next decade. The addition of interactive voice response (IVR), unified communications (UC), web-collaboration and web chat technology for use with customers will provide better customer service and make conducting business with the City more efficient. Transitioning from the dated PBX telephone technology will also reduce maintenance costs over time. The VoIP application will be able to run in a virtual environment and allow the City to move everything to session initiation protocol (SIP) trunks for VoIP phones, which are less expensive and provide more flexibility than traditional trunks. Expected savings are estimated to be \$40,000-\$50,000 per year from reduced maintenance and line costs. This project is dependent on the network replacement capital project because some equipment will have to be upgraded and many sites will have to be moved to Power over Ethernet (PoE) to power phones.

Comments:

The City is currently uses two primary phone systems, a PBX phone system and a Voice over IP phone system (VoIP). This project will transition all users on the PBX system to the VoIP system so the City will have one, unified phone system. This project will include new phones and computer clients with headsets, additional servers to support the increased user base, Unified Communications software, replacement of network switches with PoE (Power over Ethernet) switches to provide power to the phones, and additional cabling for various buildings with State users such as the Court buildings and Human Services.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2020	845,280	845,280	0
2021	165,170	165,170	0
	1,010,450	1,010,450	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund	787,550	410,280	80,170		1,278,000
	Fund Balance - IT	835,000	435,000	85,000		1,355,000
Total Revenue		1,622,550	845,280	165,170		2,633,000
Expense						
	Construction	480,000	200,000	20,000		700,000
	Equipment	1,142,550	645,280	145,170		1,933,000
Total Expense		1,622,550	845,280	165,170		2,633,000
Obligated to Date:						756,748
						28.74 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Project Number:	12-220		
Project Title:	Replacement of Network Equipment - Phase II		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Replacement	Budget Year:	2020
Year Identified:	2018		
Start Date:	7/1/2019	Project Status:	Funded
Est. Completion Date:	7/30/2024	Region:	

Description:

This project will upgrade the enterprise networking equipment that provides systems connectivity and communications throughout the City. The upgrades will be completed over a period of time (approx. 7 years). Equipment will be replaced with new hardware when the existing older hardware becomes out-of-date or reaches end-of-life. This upgrade will provide benefits citywide and will also benefit the Sheriff's Office network infrastructure, which needs an overhaul. This project will also include the replacement of network fiber connections at various critical locations throughout the City to ensure that connectivity requirements are met for the foreseeable future.

Justification:

Up-to-date network equipment is vital to City operations. In order for the network to remain robust, dependable, and durable, the aging components of the existing system require regular replacement. Newer Power over Ethernet (PoE) network switches are also required as the City pursues a strategic move towards a Voice over Internet Protocol (VoIP) based telephone system and increased wireless network access.

Comments:

For the FY 2020-24 CIP, the project plan was updated. Funding was adjusted down for FY 2020 – FY 2022, and additional funding was added for requirements for FY 2023 and FY 2024.

The existing enterprise network is a mix of networking equipment, some of it is at the end-of-life and some is newer. Most components are serviceable for 5 to 7 years, but then must be replaced. The equipment requiring replacement includes core switching, routers, and edge switches. The newer equipment will provide better features and improved performance. These upgrades need to be done in phases.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2020	600,000	600,000	0
2021	600,000	600,000	0
2022	600,000	600,000	0
2023	600,000	600,000	0
2024	600,000	600,000	0
	3,000,000	3,000,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund		600,000	2,400,000		3,000,000
Total Revenue			600,000	2,400,000		3,000,000
Expense						
	Design & Engineering		15,000	60,000		75,000
	Construction		150,000	600,000		750,000
	Equipment		200,000	800,000		1,000,000
	Other		235,000	940,000		1,175,000
Total Expense			600,000	2,400,000		3,000,000
Obligated to Date:						0
						0.00 %

Project Summary

Project Number:	13-220		
Project Title:	Website Redesign		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Replacement	Budget Year:	2020
Year Identified:	2018	Project Status:	Funded
Start Date:	7/1/2017	Region:	
Est. Completion Date:	12/30/2019		

Description:

This project will redesign and replace the City's website to implement responsive design that will work well on mobile devices as well as desktop computers.

Justification:

This project is needed because 45% of the City's website traffic is from cell phones or tablets, but the current website was built for desktop display and does not function well on mobile devices. The redesigned website will implement responsive design to work well on mobile devices. It will also implement the Google search engine, which is best practice. The "Search" page is third highest visited page on the City's website, but the current search engine is primitive

Comments:

For the FY 2020-24 CIP, the project plan was updated and funding was added for FY 2020 requirements. The City's current website was built for desktop display, and does not work well on mobile devices (i.e. cell phones or tablets). Additionally, the current vendor does not have ability to manage a responsive design.

Project Forecast

Year	Total Expense	Total Revenue	Difference
2020	150,000	150,000	0
	150,000	150,000	0

Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund	150,000	150,000			300,000
Total Revenue		150,000	150,000			300,000
Expense						
	Software	150,000	150,000			300,000
Total Expense		150,000	150,000			300,000

Obligated to Date: 0
0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
2021	30,000	0.0

Project Summary

Fully Funded

Project Number:	07-210		
Project Title:	CAD Interface between Sheriff and Police		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	System Acquisition or Upgrade	Budget Year:	2020
Year Identified:	2017	Project Status:	Fully Funded
Start Date:	12/8/2016	Region:	
Est. Completion Date:	12/30/2019		

Description:

This project will provide for a new enhancement / interface and integrated solution to the Computer-Assisted Dispatch (CAD) system and records system acquired by the Police Dept. Currently, there is not a connection to the Police Dept. CAD. This project will connect the systems.

Justification:

A directly connected interface to CAD will provide for better sharing of intelligence. It will also provide the Sheriff's Office with real-time updates. Access to real-time intelligence information will enhance job performance and safety by empowering employees with the latest information as soon as it is available. This upgrade will help the Sheriff's Office and the Police Dept. The CAD interface can provide intelligence on alerts, which will aid the Sheriff's warrants and fugitive apprehension units. It can also provide intelligence on gang relations in the jail and mugshots, which will help the Police Dept.

Comments:

On November 8, 2016, City Council approved an FY 2017 Capital Budget amendment that appropriated \$545,000 because the vendor offered incentive pricing to purchase the solution in FY 2017. (The original budget was \$606,225 in FY 2018). Funding was provided by the City's one-time account (General Fund - fund balance).

Project Forecast

Year	Total Expense	Total Revenue	Difference
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Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund	545,000				545,000
Total Revenue		545,000				545,000
Expense						
	Software	520,000				520,000
	Other	25,000				25,000
Total Expense		545,000				545,000
Obligated to Date:						529,308
						97.12 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
2020	98,000	0.0

Project Summary

Fully Funded

Project Number:	05-220		
Project Title:	Citizen Engagement Systems		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Renovation or Rehabilitation	Budget Year:	2020
Year Identified:	2018	Project Status:	Fully Funded
Start Date:	7/1/2017	Region:	
Est. Completion Date:	7/30/2021		

Description:

This project will provide for revitalization and installation of new monitors throughout the City, along with supporting systems, in order to enhance interactions with citizens within the City Council Chambers and conference room. This project will also install kiosks throughout the City to enhance citizen engagement.

Justification:

This project will help the City reach its goal to be more open, accessible, and helpful to citizens. It will also enhance the first impression many citizens have when interacting with our City, and first impressions have profound impact on perception. Additionally, interactive kiosks are seen as the modern technology to engage citizens in Smart Cities. (For more information see <http://www.justmeans.com/article/leaders-opting-for-dual-paths-to-smart-city-development>).

Comments:

The current systems in the Council Chambers area have issues making impactful presentations, and it is either difficult or not possible to connect newer technology to them. Additionally, the installation of kiosks throughout the City would allow for enhanced interactions with citizens to aid in their experience.

Project Forecast

Year	Total Expense	Total Revenue	Difference
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Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund	400,000				400,000
Total Revenue		400,000				400,000
Expense						
	Equipment	325,000				325,000
	Software	75,000				75,000
Total Expense		400,000				400,000
Obligated to Date:						291,905
						72.98 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
2022	86,000	0.0

Project Summary

Fully Funded

Project Number:	11-190		
Project Title:	Citizen Mobile Apps Project		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	System Acquisition or Upgrade	Budget Year:	2020
Year Identified:	2015	Project Status:	Fully Funded
Start Date:		Region:	
Est. Completion Date:			

Description:

This project will provide a mobile app that citizens can use to send service requests and information to the City's Customer Contact Center. The app's functionality would extend beyond simple service requests.

This will allow citizens to assist the City by reporting potholes, graffiti, broken streetlights, and other issues directly from their mobile devices. The proposed system solution would integrate seamlessly with the City's existing system, so that all data related to requests would continue to be managed in a single system that compiles, distributes, and tracks all requests. The project funding will provide for licensing, hardware, training, consulting services, and hosting for years 1-3.

Justification:

Mobile apps also encourage citizens to help local government by expanding the eyes and ears on the street. A service request sent with an exact geolocation and photo could save the City the time and money that would be spent sending a crew to assess a situation.

Project Forecast		Total Expense	Total Revenue	Difference
Year				
Project Details 2020				
Account	Description	Prior Years	2020	2021 - 24
Revenue				Future Years
	Fund Balance - IT	150,000		Total Amount
Total Revenue		150,000		150,000
Expense				
	Software	150,000		150,000
Total Expense		150,000		150,000
Obligated to Date:				80,475
				53.65 %

Related Projects		
Operating Budget Impact		
Budget Year	Exp (Rev)	FTE Impact

Project Summary

Fully Funded

Project Number:	27-160		
Project Title:	Enterprise Financials PeopleSoft/PeopleTools Upgrade - Phase I		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	System Acquisition or Upgrade	Budget Year:	2020
Year Identified:	2012	Project Status:	Fully Funded
Start Date:	1/1/2012	Region:	
Est. Completion Date:			

Description:
Upgrade the PeopleSoft Financial Management System (PSFMS) to version 9.1 or 9.2 and PeopleTools to version 9.0 or higher.

Justification:
This project includes upgrading the PeopleSoft Financial Management System to a more current release in order to maintain vendor support. It will address new federal tax regulations requiring the City to withhold 3% of income taxes from vendor payments. This project will also provide enhancements to software applications, accounts payable module (new functionality to add notes to invoices), duplicate checking, purchasing module (new functionality to allow purchase order changes to be entered by the requester and tracked from beginning to completion), asset management, automatic alerts, and eProcurement contract.

Project Forecast

Year	Total Expense	Total Revenue	Difference
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Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Cash - General Fund Transfer	703,265				703,265
Total Revenue		703,265				703,265
Expense						
	Other	703,265				703,265
Total Expense		703,265				703,265
Obligated to Date:						546,246
						77.67 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Fully Funded

Project Number:	06-170		
Project Title:	Enterprise Financials PeopleSoft/PeopleTools Upgrade - Phase II		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	System Acquisition or Upgrade	Budget Year:	2020
Year Identified:	2013	Project Status:	Fully Funded
Start Date:	7/2/2013	Region:	
Est. Completion Date:	12/30/2019		

Description:

This project will provide for upgrades of Oracle PeopleSoft Enterprise Financials to version 9.2 in 2014 and to version 9.3 in 2016. This project will also include annual upgrades of PeopleTools along with software patch maintenance and associated infrastructure upgrades (operating system and databases).

Justification:

Oracle's plans to deliver value-added features for its customers along three design principles: simplicity, productivity, and lowered total cost of ownership. As a new release becomes available, old releases are retired and are no longer supported by Oracle. Oracle plans major application releases every three years. Additionally, new functionality is continually added that is incorporated into new releases.

Comments:

On July 1, 2005, the City implemented Oracle's PeopleSoft Enterprise Financials within all City departments and Chesapeake Public Schools. The implementation consisted of version 8.8 general ledger, financial analysis and reporting, purchasing, projects, grants, fixed assets, and accounts payable.

Project Forecast

Year	Total Expense	Total Revenue	Difference
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Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Cash - General Fund Transfer	600,000				600,000
	Fund Balance - IT	620,000				620,000
Total Revenue		1,220,000				1,220,000
Expense						
	Other	1,220,000				1,220,000
Total Expense		1,220,000				1,220,000
Obligated to Date:						1,158,386
						94.95 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Fully Funded

Project Number:	08-210		
Project Title:	Enterprise Wide Technology III		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	System Acquisition or Upgrade	Budget Year:	2020
Year Identified:	2017		
Start Date:	7/1/2016	Project Status:	Fully Funded
Est. Completion Date:	6/30/2020	Region:	

Description:
This project will provide for the purchase of updates and replacements of the software that is used throughout the City government.

Justification:
This project addresses the ongoing need to update and replace software that is used citywide. This project will also ensure the availability of appropriate technology that can be supported by staff and vendors.

Comments:
Funding for infrastructure improvements and software integration needed to increase service reliability and improve enterprise business processes.

Project Forecast

Year	Total Expense	Total Revenue	Difference
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Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund	250,000				250,000
Total Revenue		250,000				250,000
Expense						
	Software	250,000				250,000
Total Expense		250,000				250,000
Obligated to Date:						91,014
						36.41 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Fully Funded

Project Number:	07-220		
Project Title:	Fire - Fire/EMS Mobile Data Terminal Replacements		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Equipment	Budget Year:	2020
Year Identified:	2018	Project Status:	Fully Funded
Start Date:	7/1/2018	Region:	
Est. Completion Date:	12/30/2019		

Description:

This project will provide for replacement of 60 Fire / EMS Mobile Data Terminals for Fire Dept. apparatus. The Mobile Data Terminals allow for personnel to interface with the 911 Dispatch system, view pre-fire plans, research response information, and complete Fire and EMS reports. The Fire Dept. is required to complete reports in a timely manner for both state and federal requirements. Timely and accurate upload of EMS reports enables billing to occur for faster EMS cost recovery.

Justification:

This project is needed because replacing the current computers with newer model rugged computers offers many advantages. The new model is a rugged computer that has faster processing speeds, expanded memory for data storage, an improved touch screen, and a larger 13.1" screen for easier viewing. Staying with the same brand of computers will allow the re-use of existing computer mounts already in the apparatus by simply replacing the docking face-plate. Moving to the new model computers will allow for faster and more reliable mobile data terminals.

Comments:

On October 23, 2018, City Council approved an FY 2019 Capital Budget Amendment that transferred \$50,000 to project # 07-220 "Fire - Fire/EMS Mobile Data Terminal Replacements" in order to complete the mobile data terminal replacements from project # 09-210 "Fire - NWS Inspections CAD Interface", which was closed because the CAD interface was able to be developed in-house.

The Fire Dept. apparatus currently use computers that are over 10 years old and run on old processors. Many of these computers were received on a state grant at no cost to the City. The computers have exceeded their service life and are slow due to limited memory and processor speed. They also have a smaller 10" screen that is difficult for personnel to read while looking up information or communicating with 911 Dispatch on the way to calls.

Project Forecast

Year	Total Expense	Total Revenue	Difference
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Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - Other Funds	50,000				50,000
	Cash - Lockbox City	280,435				280,435
Total Revenue		330,435				330,435
Expense						
	Equipment	330,435				330,435
Total Expense		330,435				330,435
Obligated to Date:						305,107
						92.34 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Fully Funded

Project Number:	10-210		
Project Title:	Fire - Telestaff Kronos Interface		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	System Acquisition or Upgrade	Budget Year:	2020
Year Identified:	2017		
Start Date:	7/1/2017	Project Status:	Fully Funded
Est. Completion Date:	12/30/2019	Region:	

Description:

This project will provide for the purchase of an interface between the Telestaff Scheduling System and the Kronos Workforce Central Timekeeping System in order to reduce duplication of information and improve accuracy of the Fire Dept.'s time and attendance.

Justification:

The need for an interface between the Fire Dept.'s timekeeping software system and the City's timekeeping software was confirmed in the 2015 internal performance audit. This interface will help resolve the issues.

Comments:

After the implementation of Kronos in 2010, the Fire Dept. began maintaining employee schedules and time-card information in two separate systems: Telestaff, implemented in 2005, and Kronos. The use of two timekeeping systems increased staff workload, created inefficiencies in the scheduling process, and increased the potential for data entry errors. The company Kronos, Inc. recently purchased Telestaff and has developed an interface between the programs to facilitate efficiency and accuracy of time and attendance records.

Project Forecast

Year	Total Expense	Total Revenue	Difference
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Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund	75,000				75,000
Total Revenue		75,000				75,000
Expense						
	Software	75,000				75,000
Total Expense		75,000				75,000
Obligated to Date:						18,853
						25.14 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Fully Funded

Project Number:	12-191		
Project Title:	Library - Automated Handling System - Phase II (Greenbrier Library)		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Addition or Expansion	Budget Year:	2020
Year Identified:	2019	Project Status:	Fully Funded
Start Date:	7/1/2018	Region:	
Est. Completion Date:	6/30/2020		

Description:

This project will provide for the phase II of this project, which will include the purchase, installation, and implementation of an automated materials handling (AMH) system at Greenbrier Library.

Justification:

The Automated Materials Handling (AMH) system is designed to receive, check-in, and sort library materials for shelving. In 2014, the three busiest libraries circulated 1.7 million items, each of which was handled a minimum of five times by employees from the time the item was retrieved from the book-drop until it was replaced on the shelf to be checked out again by patrons. The AMH system will reduce the amount of time required by staff to manually perform these duties and allow staff time to perform other higher level essential tasks, which will increase efficiency. Materials will also be available more quickly for patrons. Similar equipment already exists at neighboring libraries.

Comments:

The first AMH system was installed at Central Library in 2015 and is in use (project # 12-190). The Library's AMH project plan included future phases to install AMH systems at Greenbrier and Russell Memorial libraries pending the successful review of the Central Library implementation. The review was completed and the process improvements were confirmed. The FY 2019-23 CIP included funding to install AMH at Greenbrier Library in FY 2019 (sub-project # 12-191) and Russell Memorial Library in 2020 (sub-project #12-192).

Project Forecast

Year	Total Expense	Total Revenue	Difference
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Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund	353,300				353,300
Total Revenue		353,300				353,300
Expense						
	Construction	75,000				75,000
	Equipment	278,300				278,300
Total Expense		353,300				353,300
Obligated to Date:						0
						0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Fully Funded

Project Number:	09-220		
Project Title:	Library - Data Center Redundancy/DIT Colocation		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Replacement	Budget Year:	2020
Year Identified:	2018	Project Status:	Fully Funded
Start Date:	7/1/2017	Region:	
Est. Completion Date:	12/30/2019		

Description:

This project will create an "N+1 redundancy" configuration between the Central Public Library (CPL) data center and Public Safety to bring all mission critical systems online in the event of a partial or complete failure of CPL data center technologies. With the completion of the Public Safety building and the Dept. of Information Technology (DIT) remote data center, the Library plans to utilize the available space to create an offsite, redundant set of systems to deal with disaster recovery scenarios which are currently unprotected.

Justification:

This project is needed to ensure continuity of Library operations in a disaster scenario, which will be accomplished by creating a redundant disaster recovery site for the Library's technology systems. This project will address a recommendation from the City's Chief Information Officer. The Library has worked with the City's DIT to create a system with a modern design and minimal footprint that will allow for recovery of all critical systems in the event of a Central Library data center failure and allow for return to operations within 15 minutes.

Comments:

The Library has worked to address recommendations from the City's Chief Information Officer to move the Library's information technology systems to the new Public Safety Data Center. The recommendation specifically identified the need to create a "failover"/disaster recovery site for Library systems in conjunction with the City's IT Dept. Several solutions were investigated. This project will implement the selected solution. Project costs are estimates based on current pricing for hardware, technical support, and equipment needed to create the backup data center. The project's completion date is dependent on the completion of the public safety administration data center.

Definitions: "N+1 redundancy" is a form of information technology resilience that ensures system availability in the event of component failure. Components (N) have at least one independent backup component (+1). "Failover" is the automatic switching to backup mode and functions of a system component are assumed by a secondary system component when the primary component becomes unavailable due to failure or scheduled down time.

Project Forecast

Year	Total Expense	Total Revenue	Difference
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Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund	420,000				420,000
Total Revenue		420,000				420,000
Expense						
	Equipment	390,000				390,000
	Other	30,000				30,000
Total Expense		420,000				420,000
Obligated to Date:						399,017
						95.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
2021	49,750	0.0

Project Summary

Fully Funded

Project Number:	11-170		
Project Title:	Maximo Upgrade and Integration to PeopleSoft		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	System Acquisition or Upgrade	Budget Year:	2020
Year Identified:	2013	Project Status:	Fully Funded
Start Date:	7/1/2012	Region:	
Est. Completion Date:			

Description:

This project will provide for the upgrade of the Maximo system for Asset Management as well as the integration to PeopleSoft.

Justification:

The Maximo 7.1 system was installed in 2008 and now requires both infrastructure and application upgrades to address performance and stability issues. IBM has recently released version 7.5 which delivers new features and capabilities designed to help the organization achieve greater efficiency in asset management. The integration with the City's Enterprise Financial System (PeopleSoft) will improve the current order processing, vendor data and general ledger data processing between the two separate systems.

Comments:

The City of Chesapeake implemented Maximo 7.1 for Asset Management on December 15, 2008. The implementation was conducted in phases and addressed the City's need to have a work order processing, job scheduling, and labor recording enterprise solution.

Project Forecast

Year	Total Expense	Total Revenue	Difference
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Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Cash - General Fund Transfer	305,600				305,600
Total Revenue		305,600				305,600
Expense						
	Other	305,600				305,600
Total Expense		305,600				305,600
Obligated to Date:						0
						0.00 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Fully Funded

Project Number:	08-160		
Project Title:	Project 25 Radio System		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Replacement	Budget Year:	2020
Year Identified:	2012	Project Status:	Fully Funded
Start Date:	7/1/2013	Region:	
Est. Completion Date:	12/30/2019		

Description:

This project will upgrade the Public Safety radio system, which will provide sustainable technology and enhanced radio communications and will ensure interoperability with other agencies.

Justification:

This project is needed to provide 7/800 MHz 20-channel Project 25 (P25) Standard Integrated Voice and Data simulcast Radio System to support Chesapeake emergency response personnel. Provide data exchange paths for Computer-Aided Dispatch (CAD), Automated Vehicle Location (AVL), and other narrowband applications.

Comments:

On January 23, 2018 City Council approved an FY 2018 Capital Budget Amendment that reduced the budget for this capital project by \$816,500 and appropriated it to the IT Dept.'s FY 2018 Operating Budget in order to meet immediate needs for continued operations of the City's mainframe system.

On November 15, 2016, City Council approved an FY 2017 Capital Budget amendment that changed the funding source for \$3 million of the project's budget from debt (general obligation bonds) to cash (City Lockbox).

Project Forecast

Year	Total Expense	Total Revenue	Difference
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Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund	1,617,940				1,617,940
	Cash - Other City Funds	375,000				375,000
	Fund Balance - Other Funds	2,927,852				2,927,852
	Cash - Lockbox City	3,864,382				3,864,382
Total Revenue		8,785,174				8,785,174
Expense						
	Equipment	8,785,174				8,785,174
Total Expense		8,785,174				8,785,174
Obligated to Date:						8,760,420
						99.72 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Fully Funded

Project Number:	15-210		
Project Title:	Replacement of Network Equipment - Phase I		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	Replacement	Budget Year:	2020
Year Identified:	2017		
Start Date:	7/1/2016	Project Status:	Fully Funded
Est. Completion Date:	6/30/2020	Region:	

Description:

This project will upgrade enterprise networking equipment that provides system connectivity and communications over time to new hardware as out-of-date hardware reaches end-of-life. This project will also benefit the Sheriff's Office network infrastructure, which is in need of an overhaul.

Justification:

In order to keep current with new technology, network equipment is vital to the operations of the City. In order for the network to remain robust, dependable, and durable, aging components require regular replacement.

Comments:

The network is a mix of equipment, some of which is at end of life while other equipment is newer. Most components are serviceable for seven to ten years, but then must be replaced. The equipment requiring replacement includes core switching, routers, and edge switches. Additional PoE switches are required as more devices are connected to the network (VoIP phones, time-clocks, and wireless access points). Newer equipment will have enhanced management and provide greater performance. This will need to be done over a period of time.

Project Forecast

Year	Total Expense	Total Revenue	Difference
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Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - IT	440,000				440,000
Total Revenue		440,000				440,000
Expense						
	Equipment	400,000				400,000
	Personnel Costs	40,000				40,000
Total Expense		440,000				440,000
Obligated to Date:						384,439
						87.37 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
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Project Summary

Fully Funded

Project Number:	16-210		
Project Title:	Sheriff - Automated Rounds Software		
Asset Type:			
Department:	Information Technology Capital Projects		
Project Type:	System Acquisition or Upgrade	Budget Year:	2020
Year Identified:	2017	Project Status:	Fully Funded
Start Date:	1/1/2016	Region:	
Est. Completion Date:	12/30/2019		

Description:

This project will provide for the installation of a fully automated system that can track employee and inmate location, as well as tie back into the current Jail Management System (JMS) used by the Sheriff's Office.

Justification:

With the ever growing population of the correctional facility, along with the increasing rules and regulations that protect employees and inmates, it is a necessity to ensure proper protocol is followed. Knowledge of deputy whereabouts as well as inmate tracking is imperative to the day-to-day operations of the correctional center. With automated software, the Sheriff's Office will be able to ensure and record whether proper rounds were made at correct times and run reports on rounds and inmates locations.

Comments:

On November 8, 2016, City Council approved an FY 2017 Capital Budget amendment that appropriated an additional \$80,000 needed to purchase the system (and the total project cost was revised to \$200,000). Funding was provided by the City's one-time account (General Fund - fund balance).

Currently, rounds are done manually as well as inmate head count and location. The information is then counted and sent to Master Control. This process is time intensive and is subject to discrepancies, which must be reconciled each day. Furthermore, employee self-reporting is currently used to confirm that assigned rounds were implemented as required at assigned times.

Project Forecast

Year	Total Expense	Total Revenue	Difference
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Project Details 2020

Account	Description	Prior Years	2020	2021 - 24	Future Years	Total Amount
Revenue						
	Fund Balance - General Fund	200,000				200,000
Total Revenue		200,000				200,000
Expense						
	Equipment	20,000				20,000
	Software	180,000				180,000
Total Expense		200,000				200,000
Obligated to Date:						199,848
						99.92 %

Related Projects

Operating Budget Impact

Budget Year	Exp (Rev)	FTE Impact
2020	24,000	0.0

