County IT Projects

Quarterly Progress Report

3rd Quarter, FY18-19 January 1 – March 31, 2019







The Quarterly OC Information Technology (OCIT) Project Progress Report provides the status of all County IT projects with a budget of \$150,000 or more and/or that have been identified as meriting the Board of Supervisors' attention.

The IT projects included in this report reflect the County's ongoing commitment to align IT with the County's business values. Projects included in the portfolio cover the upgrade or replacement of aging infrastructure and end-of-life systems and investment in new, innovative, and reliable technology and platforms. These projects also enhance the County's ability to maintain critical business operations, improve productivity, and deliver more and better services to constituents.

In addition to project status updates, this report also describes the County's IT overall project performance trends over the last 12 quarters.

Highlights



At a Glance

The number of projects in this reporting period is 21, a decrease of seven projects that were completed in the previous quarter. The total budget decreases to \$36,187,031 from \$56,130,250. All projects are on schedule except for the Property Tax System Re-platform project and the Health Care Agency's ePrescription for Controlled Substances project. The Property Tax System Re-platform project is experiencing critical schedule delay, which may also impact its budget. The ePrescription project is having a minor schedule delay but is still on budget.



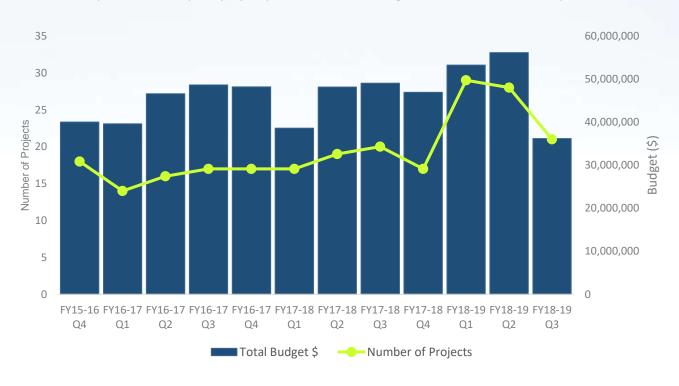
Key Accomplishment

During this period, the **Project Information Management System (PIMS)** completed "Go-Live" and became the standard system for managing the County's capital improvement projects in OC Public Works and OC Waste and Recycling. The PIMS project was completed **on schedule and within budget**.

IT Portfolio Size and Budget



This chart depicts the County's IT project portfolio size and budget trends over the last 12 quarters.



- The number of projects decreases to 21 this quarter from 28 in last quarter.
- Project data from the last 12 quarters show an average of 19.42 and a median of 17.5 projects.
- This quarter's total portfolio budget decreased by \$19,943,219 (36%).

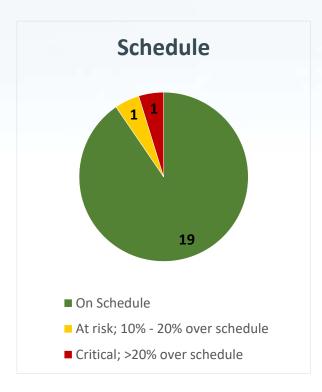
The chart above reflects projects that were active or completed during each quarter.

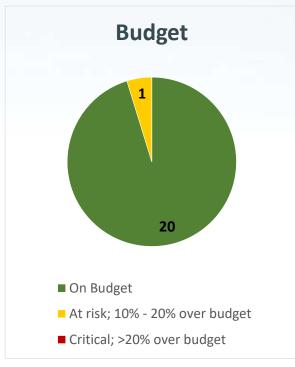
Portfolio Performance





The charts below depict the County's IT project portfolio schedule and budget performance of the active and completed projects during the reporting period.





As of this reporting period, two projects are experiencing schedule delay:

- Property Tax System Re-platform project
 - > 20% over schedule
 - Budget at risk
- HCA's ePrescription for Controlled Substances project
 - > 10% over schedule

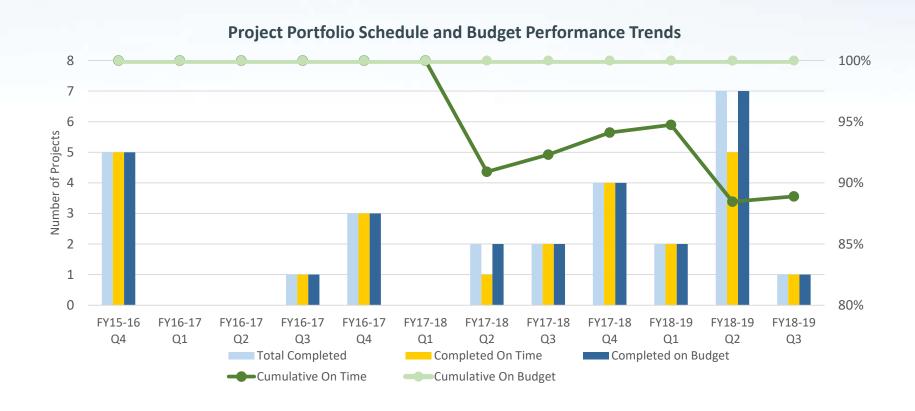
Portfolio Performance Trends





The chart below depicts the County's IT project schedule and budget performance trends for the projects that were completed over the last 12 quarters. The bars reflect the total number of projects completed in each quarter, the number completed on schedule, and the number completed on budget.

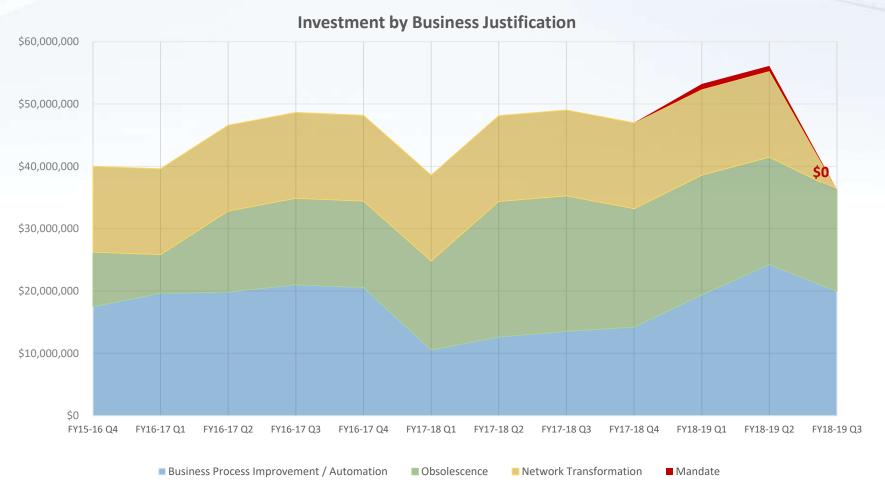
The lines reflect the percentage of projects on schedule and on budget for projects completed cumulatively over time.



Project Investment Trends



The projects aimed to improve or automate business processes account for the largest share (55%) of the County's IT budget this quarter.

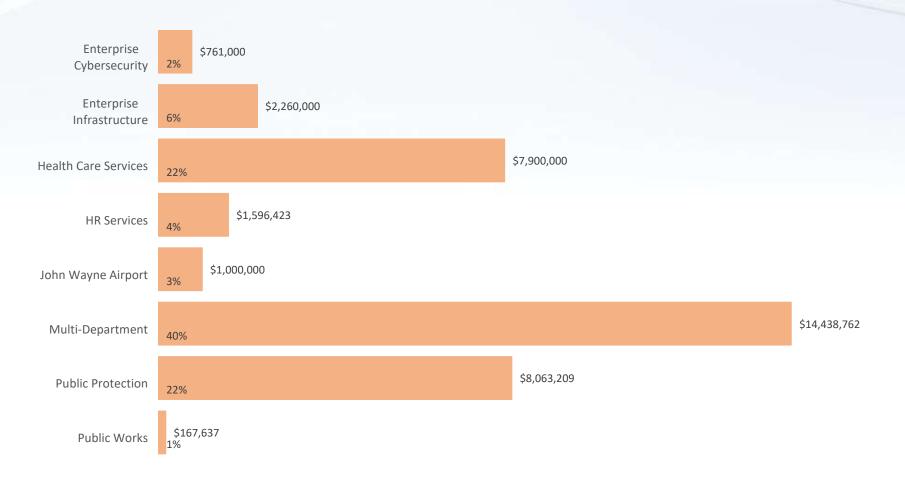


The chart above reflects projects that were active or completed during each quarter.

Investment by Service Area



Projects that cross multiple departments account for the largest share of the County's IT project investments. Health Care Services and Public Protection each also has a large share of the IT project budget.



The chart above reflects projects that were active or completed during this reporting period.

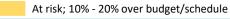
IT Project Dashboard (1 of 9)

Attachment A



Managing Dept.	Business Owner	Project Description	Budget	Schedule	Schedule / Budget	Project Phase - Status as of End of Reporting Period Key Highlights Since End of Reporting Period	% Completed
A-C	Multi	Property Tax System - Transform the County's Property Tax System from a legacy mainframe system to an openarchitecture platform.			Planned Start: 10/01/17 Planned End: 08/31/19 Budget: \$ 7,480,843 Expended: \$ 3,559,686 Encumbered: \$ 3,921,157 Balance: \$ 0 Source: General Fund	Execution - Completed three phases (out of 9). Phases 4 through 8 are in various stages of completion. Issue: Schedule is in "Red" status as a result of significantly missed deliverable dates. The vendor has shown strong commitment to the effort by adding additional resources to the transformation/development and testing efforts. The vendor has increased the number of project support staff to thirty (30) developers. Further, some of the additional developmental resources have been brought onsite to address defects and issues in an expedited fashion. Finally, the vendor has increased the number of weekly software releases to allow for a more rapid process of testing said releases. Other considerations: The County is further along on this effort than on any previous attempts at re-engineering the property tax system. The County is working with the vendor to modernize the legacy system by utilizing expertise and skills from both County and vendor staff. The County and the vendor are working together to provide strong developmental knowledge and guidance with the legacy code transformation process. The County is working with the vendor to ensure a delivery of "High" quality maintainable code. Issue: The budget has been moved to a "Yellow" status as a means of transparency. The project is undergoing an analysis of its schedule. Should the analysis determine that a rebaselining of the schedule is necessary, the project will perform a financial analysis to determine the financial impact of the re-baselined schedule. The Board will be educated on the findings.	50%
DA	DA	Record Management System - Implement a fully integrated public safety information system that has mobile or wireless capabilities to replace the manual tracking of case/unit information within the District Attorney Bureau of Investigation (BOI).			Budget: \$ 513,332 Expended: \$ 0 Encumbered: \$ 0	Initiation - Conducted analysis to determine if the DA could share OCSD existing system for potential cost savings. Due to issues concerning confidentiality, control, and maintenance of the system, decision was made to have a separate system. Briefed new executive management on the project. Initiated purchasing/procurement process for software and generated contract. Initiated pre-configuration process with business stakeholders. Began setting up virtual environments in preparation for new system.	16%

List is ordered by Managing Dept., then by Business Owner.



^{*} Project has been rebaselined.

^{**} Project will be baselined after initiation or procurement activities are complete.

IT Project Dashboard (2 of 9)

Attachment A



Managing Dept.	Business Owner	Project Description	Budget	Schedule / Budget	Project Phase - Status as of End of Reporting Period Key Highlights Since End of Reporting Period	% Completed
НСА	НСА	Business Intelligence & Analytics - Implement a system to allow for agency- wide data mining, analytics, online analytical processing, monitoring, visibility and presentation of key historical and predictive modeling based data. System benefits include timely availability of key information, decision support systems, increased development and standardization of best practices, performance and outcomes measurement and improvements, more efficient and meaningful collaboration, production of reliable and accurate key metrics, and increased overall data accuracy, security and governance.		Planned Start: 07/01/18 Planned End: 12/31/21 Budget: \$ 3,900,000 Expended: \$ 0 Encumbered: \$ 0 Balance: \$ 3,900,000 Source: MHSA	Initiation - Continued discussions and consensus of project milestones, success factors, visualization methods and options, etc. Began discussion on enterprise data warehouse design and platform options. Established workgroup to provide examples of possible use cases in various areas of operations. Identified various existing sources of clinical/Protected Health Information (PHI) data and the applications that utilize this data that could be good candidates for inclusion in the enterprise data warehouse. Next steps include developing scope of work for potential RFP or sole source for vendor/product selection and identifying potential vendors for best-fit models to Behavioral Health needs with possible sole source options. Issue and Risk Mitigation: Consider possible impact of Countywide data sharing initiatives and continue collaboration and communication with all stakeholders.	7%
НСА	НСА	Electronic Health Records (EHR) Interoperability - Implement a solution for EHR with behavioral health service contract providers and other partners to provide better integration of services and sharing of key clinical and financial data, resulting in better care coordination, elimination of duplicate data entry and maintenance, easier collaborations and transitions of care amongst the provider community, and access to a more comprehensive clinical dataset for shared clients.		Planned End: 06/30/20 Budget: \$ 3,750,000 Expended: \$ 0 Encumbered: \$ 0	Initiation - Made progress on defining the data exchange requirements with Behavioral Health contract providers. Worked with OCPRHIO (One California Partnership Regional Health Information Organization) and held discussions on the design and architecture of the data clearinghouse concept. Discussed project plan and tentative milestones. Continued research on interoperability models. Next steps are to hold discussions and consensus of project milestones and tasks, success factors, metrics to be tracked, etc.; continue defining other aspects of interoperability with business partners and future integration into the EHR; and consider connectivity options using APIs (Application Programming Interfaces) and FHIR (Fast Healthcare Interoperability Resources) standards. Issue and Risk Mitigation: Consider potential impact of other Countywide data sharing initiatives and continue collaboration and communication with all stakeholders. Continue researching OCPRHIO's long-term viability and explore alternatives to OCPRHIO.	11%

List is ordered by Managing Dept., then by Business Owner.

On track; within 10% of budget/schedule



At risk; 10% - 20% over budget/schedule



Critical: >20% over budget/schedule

^{*} Project has been rebaselined.

^{**} Project will be baselined after initiation or procurement activities are complete.

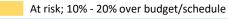
IT Project Dashboard (3 of 9)

Attachment A



Managing Dept.	Business Owner	Project Description	Budget	Schedule	Schedule / Budget	Project Phase - Status as of End of Reporting Period Key Highlights Since End of Reporting Period	% Completed
НСА	НСА	ePrescription for Controlled Substances - Implement system to enable physicians to electronically prescribe controlled substances including opioids through the electronic health record system. This replaces the use of paper prescriptions, decreases risk of fraud and abuses of controlled substances, enables interaction checks and medication alerts, increases accuracy, efficiency, and promotes overall safety and quality of care.			Planned Start: 07/01/18 Planned End: 06/30/19 08/30/19 Budget: \$ 250,000 Expended: \$ 0 Encumbered: \$ 0 Balance: \$ 250,000 Source: MHSA	Initiation - Held kick-off meeting with vendor and business stakeholders. Began the design and build of the workflows. Hardware/software installation for the Cerner Millennium system upgrade, which is a prerequisite of the ePrescription project, is in progress. Next steps include completing the Cerner system upgrade, the build of the ePrescription system, and testing and validation of the build. Issue: The Cerner Millennium upgrade was expected to be complete by April 2019. Due to a delay in system setup and issues found during testing, the upgrade is planned to go live in May. This delay impacts the schedule of the ePrescription project, which is now expected to complete in August. Parallel implementation efforts in terms of planning and discussions to the extent possible are in progress to mitigate the delay. Much of the work related to the ePrescription implementation will begin after the Cerner upgrade is complete. When this implementation does begin, it will move at a very fast pace, as this is a standard installation.	10%
HRS/ OCIT	HRS	Integrated Talent Management System - Implement a pilot of an integrated system for performance management and learning management.			Planned Start: 07/01/15 Planned End: 06/30/21 Budget: \$ 1,596,423 Expended: \$ 214,664 Encumbered: \$ 220,000	Execution - Completed the following in the test environment: system design and configuration, inbound data feed development and delivery method, custom login page, and	45%
JWA	JWA	Network Redesign for John Wayne Airport - Implement a new network infrastructure, using the latest industry standard and technology, to address increasing network traffic volume, eliminate network congestion issues, and provide system redundancy.	**	**	Budget: \$ 1,000,000 Expended: \$ 96,725 Encumbered: \$ 0 Balance: \$ 903,275	Execution - Finalized the wall-to-wall inventory of network equipment. Next steps include obtaining Board approval for network design services, developing network design, procuring equipment, and deploying the new design. The project schedule and budget will be baselined after the contract is approved. Post-quarter update: The Board approved the contract award on April 9, 2019, for a contract amount of \$225K.	10%

List is ordered by Managing Dept., then by Business Owner.



^{*} Project has been rebaselined.

^{**} Project will be baselined after initiation or procurement activities are complete.

IT Project Dashboard (4 of 9)

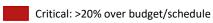
Attachment A



Managing Dept.	Business Owner	Project Description	Budget	Schedule / Budget	Project Phase - Status as of End of Reporting Period Key Highlights Since End of Reporting Period	% Completed
OCIT	Multi	Computerized Maintenance Management System (CMMS) - Replace the existing legacy systems with a centralized repository for all County's real estate assets, starting with OCSD, OCPW and CEO/Real Estate.	,	Planned Start: 12/06/17 Planned End: 05/31/20 Budget: \$ 5,143,099 Expended: \$ 3,002,928 Encumbered: \$ 1,119,159 Balance: \$ 1,021,012 Source: General Fund	nrotiles for analytics reporting as well as a follogation to conduct tee stildles	30%
OCIT	OCIT	Cybersecurity Remediation - Implement vulnerability scanning capabilities and expand security incident and event monitoring (SIEM) capabilities to allow the County to respond to audit findings on adequate log monitoring.		Expended: \$ 454,786	Closing - Completed installation and configuration of additional LogRhythm licenses to expand security incident and event monitoring (SIEM) capabilities. Next steps include completing LogRhythm backup and archiving work and official transition to O&M operations.	90%
OCIT	OCIT	Dark Fiber Evaluation - Investigate the feasibility and anticipated cost savings associated with installing a dark fiber network between the downtown area and the Orange County Data Center.		Budget: \$ 170,000 Expended: \$ 32,226 Encumbered: \$ 27,683	Closing - Phase 1 - dark fiber evaluation for Building 16: Completed. Conducted cost/benefit analysis and made the decision to stay with regular network circuit. Phase 2 - dark fiber evaluation for network connectivity between campus sites and OC Data Center: Being finalized. Received vendor quotes; completed evaluation and comparison of vendor quotes based on affordability, reliability, and schedule; gathering and reviewing evaluation recommendations. Next steps include finalizing recommendations and project closure activities.	95%

List is ordered by Managing Dept., then by Business Owner.





^{*} Project has been rebaselined.

^{**} Project will be baselined after initiation or procurement activities are complete.

IT Project Dashboard (5 of 9)

Attachment A



Managing Dept.	Business Owner	Project Description	Budget	Schedule	Schedule / Budget	Project Phase - Status as of End of Reporting Period Key Highlights Since End of Reporting Period	% Completed
OCIT	Multi	Email Cryptography - Research and implement an email encryption solution at pilot departments to address the compliance requirements for the handling of transmission of privacy data and other types of sensitive information.			Expended: \$ 23,341 Encumbered: \$ 0	Execution - Completed solution research, evaluation and selection. Preparing for pilot with all OCIT staff and select users at CSS. Next steps include completing the pilots at OCIT and CSS and deploying the solution in other departments/agencies, including HRS, CoCo, and HCA.	35%
OCIT	OCIT	Enterprise Network Redesign - Assess current network infrastructure and develop a network design that will meet the County's future business and technology needs.	**	**	Expended: \$ 27,307	Execution - Completed procurement of professional services. Next steps include establishing the schedule baseline, developing the conceptual design, completing the final network diagram and migration strategy, and working with the vendor to pilot the solution.	30%
OCIT	Multi	Identity Governance & Administration - Implement enterprise user provisioning capabilities and enhance synchronization with department directories.	**	**	Budget: \$ 800,000 Expended: \$ 10,100 Encumbered: \$ 0	Initiation - Finalized scope of work and contract negotiations. Submitted ASR for contract award with target Board date of May 7, 2019. Conducted briefings for project stakeholders on proposed user provisioning processes, implementation approach, and project status. Next steps include obtaining Board approval for contract award, initiating planning process, and setting up a Dev/Test environment. Project will be baselined after contract award.	8%

List is ordered by Managing Dept., then by Business Owner.

On track; within 10% of budget/schedule





Critical: >20% over budget/schedule

^{*} Project has been rebaselined.

^{**} Project will be baselined after initiation or procurement activities are complete.

IT Project Dashboard (6 of 9)





Managing Dept.	Business Owner	Project Description	Budget	Schedule	Schedule / Budget		Project Phase - Status as of End of Reporting Period Key Highlights Since End of Reporting Period	% Completed
OCIT	Multi	Project Information Management System (PIMS) - Provide a standard, Countywide system to enhance the management of capital improvement projects.		*	Planned End: 09/ 10/ 03/ Budget: \$ 9 Expended: \$ 6 Encumbered: \$ 1	690,815 172,649 111,356	Closing - All deliverables have been completed, and PIMS went live in production on March 26, 2019. The project is officially closed.	100%
OCIT	OCIT	Project Portfolio Management System - Implement a solution for OCIT to manage its growing IT project portfolio.	**	**	Planned End: TBI Budget: \$ 2 Expended: \$ Encumbered: \$	225,000 a 5,358 l 0 s 219,642 a	Initiation - Conducted research of potential solutions. The Board suggested getting external assistance to help OCIT choose a project management tool and approved the list of Performance Auditors that can be used to identify a vendor to provide this assistance. OCIT submitted the scope of work for the Performance Auditors to assist with the need assessment and tool selection. The scope of work is under review by the Board office.	5%

 ${\it List is ordered by Managing Dept., then by Business Owner.}$

^{**} Project will be baselined after initiation or procurement activities are complete.





^{*} Project has been rebaselined.

IT Project Dashboard (7 of 9)

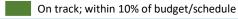
Attachment A



Managing Dept.	Business Owner	Project Description	Budget	Schedule	Schedule / Budget		Project Phase - Status as of End of Reporting Period Key Highlights Since End of Reporting Period	% Completed
OCIT	Multi	ServiceNow for Shared Services - Implement a single ticketing system to improve the Service Desk experience for Shared Services departments; transition Shared Services departments to a unified call center model; deploy automated discovery tool to capture infrastructure components; and modify ServiceNow portal and service catalog for ease-of-use Countywide.			Planned End: 06/3 Budget: \$ 49 Expended: \$ 12 Encumbered: \$	/01/17 /30/20 490,000 124,988 0 365,012	 Execution OCPW: Completed Go-Live for both service desk ticketing and Central IT Service Desk CSS: Completed Go-Live for service desk ticketing. Concluded negotiations with CSS to transition department to use Central IT Service Desk for user calls. Next step is to complete CSS pre-requisites to go-live (background checks and department-based routing for ServiceNow) Probation: Identified issues at Probation that require mitigation prior to go-live. The ServiceNow deployment was scheduled to occur by 6/30/19, but department budgetary concerns suggest this will need to be moved into FY 19-20. Completed production deployment of ServiceNow Discovery module. Phases I & II have been combined (and project schedule rebaselined from 6/30/19 to 6/30/20) to include full project scope. 	46%
OCIT	OCIT	Virtual Machine Environment Upgrade - Replace the current aging virtual server infrastructure and adding capacity.	**	**	Planned End: TBD Budget: \$ 80 Expended: \$ 3 Encumbered: \$	300,000 31,932 0	On Hold - This project has been placed on-hold due to budget constraints. OCIT plans to resume the project in FY 19-20. This project will be removed from the Quarterly IT project report until the project is resumed. The project team completed an assessment of current environment, requested for quotes and received vendor responses, and completed analysis of solution options.	25%

List is ordered by Managing Dept., then by Business Owner.

^{**} Project will be baselined after initiation or procurement activities are complete.





^{*} Project has been rebaselined.

IT Project Dashboard (8 of 9)

Attachment A



Managing Dept.	Business Owner	Project Description	Budget	Schedule	Schedule / Budget	Project Phase - Status as of End of Reporting Period Key Highlights Since End of Reporting Period	% Completed
OCIT	Multi	Web Content Management System - Phase I - Replace the existing platform and redesign the Board sites to enhance public experience of County online information and service offerings by providing multiple online channels and formats such as web, mobile apps, mobile devices, email media and social media networks.			Expended: \$ 76,088 Fncumbered: \$ 5.600	Execution - Completed the design and content migration for five Board of Supervisors' websites. Next steps include quality assurance of the websites, development of the landing page, integration of the search engine with the legacy websites, and training for the content editors.	75%
OCIT	OCPW	Lab Information Management System - Implement a solution to enhance the operations of the Orange County Environmental Resources to comply with environmental regulations, permits and standards to monitor storm water quality for multiple programs.			Encumbered: \$ 20,049	Execution - Completed business requirements gathering and analysis. Upon the completion of requirements, the project schedule was baselined with a planned end date of 10/30/2019. Next steps include workflow configuration, data interface, setup of support data, and general configuration.	18%

List is ordered by Managing Dept., then by Business Owner.

On track; within 10% of budget/schedule





Critical: >20% over budget/schedule

^{*} Project has been rebaselined.

^{**} Project will be baselined after initiation or procurement activities are complete.

IT Project Dashboard (9 of 9)

Attachment A



Managing Dept.	Business Owner	Project Description	Budget	Schedule / Budget	Project Phase - Status as of End of Reporting Period Key Highlights Since End of Reporting Period	% Completed
OCIT	OCSD	Integrated Jail Management System (IJMS) - Replace the existing 25-year-old system currently on the Unisys mainframe.		Planned Start: 06/15/16 Planned End: 12/31/19 Budget: \$ 6,800,000 Expended: \$ 2,198,477 Encumbered: \$ 0 Balance: \$ 4,601,523 Source: General Fund		
PD	PD	Modernizing the Courtroom Wireless & Cabling - Replace end-of-life wireless and network access system.		Budget: \$ 749,877 Expended: \$ 566,113 Encumbered: \$ 0	Execution - Completed the procurement of the hardware, software, and professional services; completed the deployment of the network switches, firewalls, and power supplies at the courthouses; installed five of 8 of the AT&T circuits; and submitted the requests to replace the wireless access points and running the cabling to the counsel tablets in each of the courthouses. Next steps include the deployment of the servers and network equipment at each of the Data Centers, completion of the new wireless network, and installation of the last three AT&T circuits.	40%

List is ordered by Managing Dept., then by Business Owner.



^{*} Project has been rebaselined.

^{**} Project will be baselined after initiation or procurement activities are complete.

Project Landing Map





The map below depicts when project benefits are realized.

Q1 FY18-19	Q2 FY18-19	Q3 FY18-19	O4 EV19 10
Completed Projects	Completed Projects	Reporting Quarter	Q4 FY18-19
✓ PA/PG Conservatorship System	 ✓ Boardroom AV System Upgrade ✓ County Data Integration to Aid Homelessness Technology Strategy ✓ Customer Relationship Management (CRM) / Land Management System ✓ Enterprise CRM Strategy & Architecture ✓ OCIT PM Support for ATS II Support Transition ✓ Software Defined Network Pilot ✓ Voice & Data Network Transformation 	✓ Project Information Management System (PIMS)	 Cybersecurity Remediation Dark Fiber Evaluation ** Virtual Machine Environment Upgrade Web Content Management System Phase I
Q1 FY19-20	Q2 FY19-20	Q3 FY19-20	Q4 FY19-20
 Email Cryptography ePrescription for Controlled Substances Modernizing Courtroom Wireless & Cabling Property Tax System Delayed; revising and prescription of the property o		 DA's Record Management System ** Enterprise Network Redesign ** Project Portfolio Management System 	 Computerized Maintenance Management System (CMMS) Electronic Health Records (EHR) Interoperability ** Network Redesign for JWA ServiceNow for Shared Services
Q1 FY20-21	Q2 FY20-21	Q3 FY20-21	Q4 FY20-21
			** Identity Governance & Administration Integrated Talent Management System
Q1 FY21-22	Q2 FY21-22	Q3 FY21-22	Q4 FY21-22
	■ HCA Business Intelligence & Analytics		

[✓] Project benefits that have ben realized

^{**} Project will be baselined after initiation or procurement activities are complete.