

<b>Subject:</b> CIP Master Lease Digital Evidence Data Storage (P342001)	
<b>Analyst:</b> Dr. Costis Toregas, Council IT Adviser Susan Farag, Legislative Analyst	<b>Committee:</b> Joint GO/PS
<b>Keywords:</b> #digital evidence, storage, SAO, body cameras	

<b>Name of Department, Division, or Program:</b> Department of Technology Services		
<b>FY20 CE REC:</b>	\$750,000	0 FTE
<b>Increase/Decrease from FY19</b>	N/A (new program)	N/A (new program)

### COMMITTEE-RECOMMENDED CHANGES

The Committee did not recommend any changes and unanimously recommended the CIP Master Lease Digital Evidence Data Storage (P342001) budget as proposed by the Executive in the amount of \$750,000.

### KEY CE CHANGES FROM FY19

This is a new program.

### OTHER ISSUES

- The Committees asked the Executive to provide the long-term strategic plan that will address storage needs across various platforms and applications as soon as it is made available by the "Digital Evidence Work Group" currently working on the topic. Future funding decisions for added storage will be made using the recommendations of this Strategic Plan.
- The Committees asked the Executive to ensure that all departments and agencies have an updated and forward-looking data retention strategy; such strategies should be included in discussions regarding future data storage expenditures.

### This report contains:

Staff Report to the Committee  
FY20 Recommended Budget DCM NDA

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**MEMORANDUM**

April 26, 2019

TO: Government Operations and Fiscal Policy Committee  
Public Safety Committee

FROM: Dr. Costis Toregas, Council IT Adviser  
Susan Farag, Legislative Analyst 

SUBJECT: Capital Improvements Program – Master Lease Digital Evidence Data Storage (P342001)

PURPOSE: To review and recommend action regarding new CIP project P342001 on data storage

The following are expected to attend:

Laura Chase, Deputy State's Attorney  
Dave Seeman, State's Attorney's Office  
Sonny Segal, Chief Information Officer, Department of Technology Services (DTS)  
Dieter Klinger, Chief Operations Officer, DTS  
Michael Knuppel, Chief Data Officer, DTS  
Trevor Lobaugh, Office of Management and Budget (OMB)

**Staff Recommendation:**

1. **Request** that the Committees be provided with an update, including expected technology migrations and funding envelopes for the Strategic Plan that will address long-term storage needs for the State's Attorney's Office as well as other departments.
2. **Endorse** the Executive's recommendation of **\$750,000** for the Digital Evidence Data Storage program in FY20 and recommend its full funding to the Council.

The Executive has requested funds for a new project in the Capital Improvements Program that will allow for the purchase of expanded digital memory to store the increasing amounts of digital evidence in the State Attorney's Office (SAO); see ©1 for this request.

Council staff raised several questions; the answers, along with a general overview that sets the context for the request, and Council staff comment where appropriate, are provided below.

## Overview

The JustWare Case Management System (CMS) was installed in 2009 and is deemed the SAO's mission-critical system. The CMS is the primary evidence repository and management of all case-related information, reports, documents, scheduling, workflows, grand jury processing, and eDiscovery material for the prosecution of cases within the Circuit and District Courts. In September 2014, an eDiscovery application was added to the JustWare CMS. This connected application allows the SAO Assistant State's Attorneys and discovery teams to assemble discovery material and have it uploaded to an external web-accessible front-end application/database for the purpose of downloading discovery material to over 1,200 defense attorneys assigned to their individual case(s). A custom API program (interface) was written to process and upload the discovery packet(s) to the front-end web server database every 15 minutes. The entire JustWare/eDiscovery System is used by 171 internal and 1,200 external users. In addition, several push/pull data interfaces to help process cases have been developed over the years as well as a new interface to support the State of Maryland Judiciary's Maryland Electronic Courts (MDEC) Case Management System.

The growth of digital evidence has been driven by the proliferation of video sources and the increases in video resolution. This challenge is being experienced by jurisdictions nationwide. The impact of the exponential growth has significantly outpaced our ability to keep up with storage and infrastructure needed to store and transmit the data, which has led to system slowdowns, data bottlenecks, and backup limitations. For the past year, DTS has scrambled resources to address the rapid data growth, ensuring case data is preserved and SAO is able to perform its core business functions.

The County's overall strategy is to address the immediate critical needs to continue business operations and at the same time develop a strategic plan to address long-term needs. The request for additional on-premise storage is to address critical short-term needs.

**Council Staff Comment:** It is Council Staff understanding that a working group on "Digital Evidence Management and eDiscovery" has been working for over a year to develop such a Strategic Plan. Apparently, recommendations are not yet ready to be implemented, and this is why a short-term "fix" is required now. The Committees could benefit from a discussion of this Working Group's findings to date, and whether this short-term purchase aligns with the findings to date.

## Council Q&A

- 1. Please provide a table with current storage usage and future expectations in the next 24 months by user department/agency.**

*Currently, digital evidence is stored in evidence.com (cloud storage) and County servers (see Q2). Data is copied and stored in JustWare, an on-premise system, to meet a Montgomery County Judiciary requirement to maintain a single portal from which the State's Attorney's Office and defense counsel can access case data. JustWare storage requirements have grown exponentially over the past decade and are anticipated to double annually in the coming years. A DTS-led workgroup is evaluating long-term storage solutions.*

<b>JUSTWARE DATA STORAGE</b>		
<b>Calendar Year</b>	<b>TB / Year</b>	<b>Total Raw Storage (TB)</b>
2008	0.001	0.001
2009	0.001	0.002
2010	0.003	0.005
2011	0.004	0.009
2012	0.007	0.016
2013	0.008	0.024
2014	0.2	0.224
2015	5	5
2016	18	23
2017	50	73
2018	80	153
Est. 2019	150	303
Est. 2020	300	603
Est. 2021	600	1,203

**Council Staff Comment:** Obviously, a doubling of data every year is not sustainable, as the parable of the chess board and the grain of rice reminds us. The answer to constantly providing for unchecked growth is to establish strong retention strategies and reject the notion that “if we capture, we must store” approach. The Executive should be addressing this larger issue in subsequent stages of the Strategic Plan implementation.

- 2. Explain why the request is for on-premises hardware rather than cloud storage (with its superior security considerations and ability to scale up on demand).**

*On-premise hardware is needed to address the immediate need of rapidly growing data in SAO's JustWare platform, which is an on-premise system. This solution adds 1,000 Terabytes (TB) in storage capacity which will address projected JustWare storage needs through FY21. A DTS-led workgroup is evaluating long-term storage solutions including cloud storage.*

- 3. Why do we not allow the vendor who provides the data capture devices (cameras, cell phones, etc.) to provide storage under the user fee we currently pay rather than buy our own?**

*The County is using vendor provided cloud storage for initial capture for body worn cameras and is migrating in car video and interview room video to the same model over the next four (4) years.*

*However, data storage for the Montgomery County Judiciary is separate from the initial data capture storage for several reasons, including but not limited to the need to tag, redact, SAO access and make available to defense council, using SAO's current on-premise case management system.*

*The DTS-led digital evidence workgroup is evaluating long-term storage solutions including cloud storage, as well as the interfaces and emerging architectures to address long-term needs.*

**Council Staff Comment:** From the answer to the question, it is not clear whether the Executive has asked the current vendor who is providing user agencies with unlimited memory whether a solution might be found within our current arrangement, perhaps at less cost than the intended purchase and staff time to make it operational.

**4. Why is a one-time purchase included in a Master Lease? Can the hardware be leased?**

*The PDF provides appropriation to purchase the equipment in FY20 which will then be financed to spread the cost across its useful life. The FY21 operating budget will provide appropriation for debt service payments.*

**5. Is there an established data retention strategy for each of the departments that will use this additional storage? Without a strong retention strategy to reduce the data to be stored, we will be inundated by data and associated costs and find it increasingly difficult to find, access, and analyze data we really need.**

*The SAO retention policy includes requirements for three, seven, and fifty years based on the type of case. The County deletes case data in compliance with these policies.*

**Council Staff Comment:** Not only the SAO, but all user departments and agencies should have a data retention and storage policy. This policy should be reviewed periodically to ensure that it conforms to state law, usage conditions, and cost realities. The Committees should request that a review of all policies be undertaken so that future storage costs can be effectively managed.



# Master Lease: Digital Evidence Data Storage (P342001)

<b>Category</b>	General Government	<b>Date Last Modified</b>	03/14/19
<b>SubCategory</b>	Technology Services	<b>Administering Agency</b>	Technology Services
<b>Planning Area</b>	Countywide	<b>Status</b>	Planning Stage

Total	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
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### EXPENDITURE SCHEDULE (\$000s)

Other	750	-	-	750	-	750	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>750</b>	-	-	<b>750</b>	-	<b>750</b>	-	-	-	-	-	-

### FUNDING SCHEDULE (\$000s)

Short-Term Lease Financing	750	-	-	750	-	750	-	-	-	-	-	-
<b>TOTAL FUNDING SOURCES</b>	<b>750</b>	-	-	<b>750</b>	-	<b>750</b>	-	-	-	-	-	-

### APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 20 Approp. Request	750	Year First Appropriation	
Alternative Appropriation	-	Last FY's Cost Estimate	
Expenditure / Encumbrances	-		
Unencumbered Balance	-		

### PROJECT DESCRIPTION

The volume of digital evidence has grown exponentially in recent years with the implementation of body worn cameras and increased storage capacity of personal devices including cellphones and laptops. To manage the volume of data, the County requires additional storage capacity through the use of network attached storage and additional servers.

### ESTIMATED SCHEDULE

Hardware will be purchased in FY20.

### PROJECT JUSTIFICATION

This investment addresses FY20 data storage requirements as the County develops a long term solution.

### FISCAL NOTE

This project provides appropriation authority for a purchase funded through the Master Lease program. Master Lease payments will be appropriated through the FY21 Operating Budget.

### COORDINATION

Department of Technology Services, Department of Finance, State's Attorney's Office