

Administrative and Supporting Services
110 - M2 - KA - PURCHASING IN OUR MODERN WORLD

Agency Submittal: 11-2017-19-YR Agency Req

Budget Period: 2017-19

SUMMARY

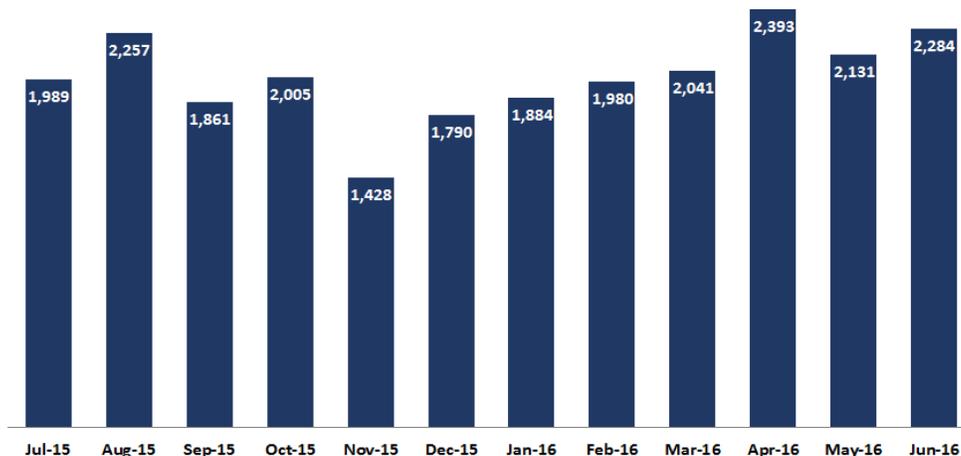
DSHS’s obsolete e-Purchasing and Asset Management system (TRACKS) is used to purchase almost all of the day-to-day operational goods and services needed by DSHS, including purchases by the residential facilities which serve some of the state’s most vulnerable client populations. At 20 years old, the system is in imminent danger of permanently failing. The system yields high error rates, requires significant re-work, numerous recurring manual work-arounds, and impedes the agency’s ability to comply with current procurement laws and State Administrative and Accounting Manual (SAAM) requirements. When failure occurs, DSHS will have to revert to wasteful manual paper processes to complete over \$100,000,000 of goods and services purchases per year. DSHS therefore requests \$3,971,000 (\$3,257,000 GF-State), which includes 4.0 FTEs, to procure and maintain a custom off-the-shelf (COTS) or Software-as-a-Service (SaaS) system that would replace the antiquated TRACKS system.

PROBLEM STATEMENT

DSHS uses the legacy e-Purchasing and Asset Management system (TRACKS) to process over 31,000 purchases annually totaling over \$100,000,000 and to manage assets worth over \$82,000,000. The Asset Module of TRACKS was built in 1996 and modifications to the system have been made over time. TRACKS is expensive and challenging to maintain and modify. The following are known problems with TRACKS:

- **System Errors Rates:** The graph below shows the number of errors per month. The majority of these errors result in lost connectivity and require re-work.

Total number of TRACKS user errors* reported each month from July 2015 - June 2016



*The majority of errors cause the user to lose their work, forcing them to start the entire process over. All of these errors cause needless delays and wasted time for our staff.



DSHS VISION
 People are healthy • People are safe • People are supported • Taxpayer resources are guarded
DSHS MISSION
 To transform lives
DSHS VALUES
 Honesty and Integrity • Pursuit of Excellence • Open Communication • Diversity and Inclusion • Commitment to Service

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- **Poor Functionality:** The TRACKS legacy system does not meet DSHS's needs in several key areas:
 1. No ability to enforce compliance with procurement reform laws, SAAM Policies, Department of Enterprise Services (DES) Policies, and system profile security. This requires a manual review of approximately 77,000 Purchase Order (PO) individual line item details per year, to enforce compliance.
 2. Does not provide vendor information (vendor name, address) on purchase card spend.
 3. Little to no flexibility to reconfigure to accurately reflect organizational changes and DSHS regional and institutional business consolidations.
 4. Inability to prevent non-compliant purchases.
- **Unprotected Protected Health Information (PHI):** TRACKS contains numerous entries that include Health Insurance Portability and Accountability Act (HIPAA) PHI for DSHS clients. This was recently found during examination of a report showing free-form text field entries that had been made in the system. TRACKS was not designed to contain Category 4 confidential data and consequently does not have adequate security protections in place, such as logging and encryption. DSHS is at serious risk of breach of client PHI.

DSHS receives one to two repeated public disclosure requests a year for TRACKS PO data. Before records for these requests can be produced, the records must be manually reviewed to redact PHI and any other confidential information in the TRACKS entries. There is no way in the system to mark information once as confidential and then temporarily block that information from being produced in a report. As a result, when there is a public records request for "all" PO records, approximately 77,000 PO individual line item details must be reviewed to redact all confidential information that we are required to protect from disclosure.

- **Manual Work Arounds Required:** The lack of flexibility and inefficiencies of the system creates hours of manual workarounds for staff statewide.
 1. The legacy system does not meet Office of Financial Management (OFM) requirements in that it does not calculate depreciation, allow asset category code changes to reflect current OFM SAAM Chapter 30 requirements, include the full value of asset (taxes, shipping, subsidiary components), or accept direct entry of non-DSHS transferred assets into the DSHS system. As a result DSHS must perform a manual depreciation calculation to meet OFM SAAM requirements.
 2. When DSHS reorganizes programs, the legacy system does not allow changes to organizational identifiers causing additional work to run reports by the new organizational structure.
 3. TRACKS has no capability to e-sign or e-mail POs to vendors. In Fiscal Year 2016 DSHS staff had to manually print, sign, scan, receive, and e-mail over 31,000 POs to vendors.
 4. TRACKS has no integration capability with the DSHS E-PMX Consumable Inventory system, requiring double entry (3,580 POs worth over \$12.7 million in purchases) in both TRACKS and E-PMX to support DSHS client residential facilities.
- There are numerous technical and security risks inherent to the current production version of TRACKS and the system is out of compliance with the Office of the Chief Information Officer (OCIO) and DSHS Security Policy.
 1. The Visual Basic technologies utilized in a number of the key TRACKS application components are long past end-of-life and are no longer supported for any further development. Shared, compiled Visual Basic dynamic link libraries (DLLs) were created approximately 15 years ago. There is significant risk, development effort, and regression testing involved with the modification and recompilation of these DLLs as the DLLs and associated references are prevalent throughout the application. In addition, Microsoft has discontinued development support of DLLs and will discontinue runtime support in the future. As operating systems on the servers are upgraded, the risk of DLLs no longer running increases. This raises the likelihood of a major crash of TRACKS that we likely will not be able to recover. These DLLs also pose a security risk with SQL injection because the code within the DLLs use

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- dynamically generated SQL queries instead of parameterized queries or stored procedures. This leaves the application vulnerable to hacking.
2. The e-Purchasing module of the TRACKS solution is highly susceptible to even slight impacts to the performance of the database, web server and/or network communications. The application design pattern used for the TRACKS e-Purchasing solution is not optimal for the increased workload the application was not originally designed for. This type of application design was predicated on being hosted in an optimized application hosting environment. The agency's current hosting solution focuses on consolidation and sharing of resources using a commodity one-size-fits-all solution. Performance and speed for a single solution is not part of the hosting pattern and as a result the unique needs of the TRACKS application were not taken into consideration when the current application hosting solution was implemented. This results in a poor user experience with increased errors which increase in frequency and severity as the load on the system increases.
 3. DSHS currently contracts for an Information Technology (IT) Development resource to maintain the failing legacy TRACKS system and to address critical system problems at a cost of approximately \$82,000 per year.

PROPOSED SOLUTION

The DSHS e-Purchasing and Asset Management Replacement project would replace the outdated legacy purchasing and asset inventory system and meet procurement reform law. Based upon responses to a 2015 Request for Information (RFI), DSHS has determined that a COTS or SaaS system would best meet DSHS's needs. If this Decision Package is approved, DSHS will release a Request for Proposal to procure a COTS or SaaS system that would better enforce legal compliance, create workload efficiencies, stop noncompliant purchases, provide budgetary controls, create robust spend reporting, and accurately depreciate assets. The new system would be implemented within 18 months from the date of award.

The requested funding spans 18 months and would include:

- Procurement of a COTS or SaaS system
- Four FTEs in 18-month project positions for implementation:
 1. IT Business Analyst – To serve as liaison between the vendor and DSHS, validating business requirements and solution and facilitating configuration management and user acceptance testing.
 2. IT Developer – To serve as liaison with the vendor and validate DSHS security and other technical requirements, develop a solution to authenticate users to Cloud Active Directory (AD), assist the vendor with data migration and conversion, and implement coding and unit testing as needed.
 3. Program Specialist 5 – A DSHS point-of-contact to support the IT Business Analyst and the vendor team in configuring vendor's system for the DSHS organizational structure.
 4. Program Specialist 5 – To serve as a liaison with DSHS stakeholders to assess current processes, needed changes, and develop and conduct statewide training.

The procurement of a new COTS or SaaS system will have a direct positive effect on DSHS clients as the system supports: 1) purchases of medicine, food and goods that are vital for the vulnerable residential client population; and 2) daily operational purchases for goods and services at DSHS field offices and the clients they serve.

EXPECTED RESULTS

DSHS expects the new system will eliminate waste and duplicative processes, as well as maximize effectiveness and efficiencies. This will address the problems explained above, and will ensure compliance with the Procurement Reform law, IT security standards, DSHS policies and procedures, and Performance Based Contracting/Monitoring requirements.

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- The new system will reduce risk of delays and errors, and will allow for continuous improvements. A new system would eliminate the inefficiencies noted in the problem section, as well as eliminate redundant work processes and manual workarounds at the individual purchasing offices throughout DSHS. DSHS purchasing and asset management would be more efficient, reduce processing time, and could redirect time now spent on wasteful processes toward more productivity in other business supporting functions.
- Compliance with Purchasing and Asset Management rules: Implement controls that will prevent and/or detect actions that violate state and DSHS purchasing and asset management rules. Results include:
 1. Detection and prevention of non-compliant or fraudulent purchases
 2. Assurance that competitive processes are followed for purchases requiring a competitive process.
 3. Accurate depreciated values for asset inventory reporting.
- Robust enterprise reporting for Agency Executive Management, State Auditors, the Legislature and the Governor's Office. This includes ability to pull and report on any (or all) of TRACKS data fields to allow:
 1. Executive management to get the reports they need from the system directly and immediately.
 2. Users to get accurate reports and information about purchases and assets (historical and current).
 3. Identify and affect an increase in spend with diverse (woman, minority, veteran, and small business) vendors.
- Remove waste and streamline purchasing and asset management. Results are elimination of manual workaround actions at local offices.
- Easy to use and intuitive system. More user-friendly interface would reduce user errors and require less training.
- Flexible and responsive to changing organizations and organizational needs; a system that has flexibility to adjust to yearly Delegation Memo changes, budgetary purchase restrictions, IT purchasing requirement changes, and DSHS organizational changes.
- Potential Statewide Enterprise Pilot which could provide a viable, scalable solution with the potential for a future bridge with the OneWashington enterprise procurement system.

If this request is not adopted, there is a potential that the legacy procurement system will fail without the ability to recover. This would result in DSHS staff having to use time-consuming manual processes to purchase necessary medicine, food, and amenities for the vulnerable client population.

STAKEHOLDER IMPACT

This proposal is expected to have support from all stakeholders. There is no known opposition.

Inefficiencies cause stakeholders to struggle in usage of the existing system and create unnecessary work. In addition, administrations and divisions resort to creating internal tracking shadow systems, which leads to data captured in multiple systems and tools. These actions are a waste of DSHS resources and time.

The new system would have a significantly positive impact on stakeholders, improving, simplifying and standardizing processes. This would allow purchasing staff to efficiently and expeditiously process requests, getting necessary items and services in support of DSHS operations to include care for clients and residents.

The greater impact is having demonstrative ability to ensure purchasing actions are compliant with RCW 39.26, DES, and DSHS purchasing rules and policies. This will enable DSHS to receive a lower risk rating and instill confidence with DES and other stakeholders. Stakeholders could be assured their purchases comply with laws, rules, policies, and procedures.

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Program Contact: Sheila Anderson (360) 664-6023

OTHER CONNECTIONS

Performance Outcomes/Important Connections

1. Does this DP provide essential support to one or more of the Governor’s Results Washington priorities?

Goal 5: Efficient, Effective & Accountable Government - Customer Satisfaction and Confidence - 1.1 Increase customer services.

2. The decision package meets the following DSHS’ strategic objectives:

This system replacement project was initially part of the Fiscal Year 2016 Financial Services Administration’s (FSA) Strategic Plan, but removed from the FSA plan with the understanding this would be part of the DSHS Enterprise Technology (ET) Plan, as ET is leading the system replacement effort.

The Fiscal Year 2016 FSA Strategic Plan includes Objective 5.8, *“Reduce the amount of losses identified through annual inventory of tagged assets”*. Although this objective does not encompass the entire system replacement project, implementation of a new system solution will improve the management and valuation of tagged DSHS assets.

3. Identify other important connections or impacts below. (Indicate ‘Yes’ or ‘No’. If ‘Yes’ identify the connections or impacts related to the proposal.)

- a) Regional/County impacts? **No**
- b) Other local government impacts? **No**
- c) Tribal government impacts? **No**
- d) Other state agency impacts? **Yes**
- e) Responds to specific task force, report, mandate or executive order? **No**
- f) Does request contain a compensation change or require changes to a Collective Bargaining Agreement? **No**
- g) Facility/workplace needs or impacts? **No**
- h) Capital budget impacts? **No**
- i) Is change required to existing statutes, rules or contracts? **No**
- j) Is the request related to litigation? **No**
- k) Is the request related to Puget Sound recovery? **No**
- l) Other important connections? **No**

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4. Please provide a detailed discussion of connections/impacts identified above.

There may be an impact to other state agencies if the DSHS procured system could act as viable, scalable solution bridge for the OneWashington enterprise procurement solution.

Alternatives/Consequences/Other

5. What alternatives were explored by the agency, and why was this alternative chosen?

Outreach was made to several other state agencies and institutions of higher education to determine if there were existing systems that would meet DSHS needs. It was found that these agencies either did not have a comparable system or would not recommend what they had. Several of the agencies were interested in DSHS' research and wanted to be kept informed of progress on this decision package.

6. How has or can the agency address the issue or need within its current appropriation level?

DSHS cannot replace the current legacy system without additional funding.

7. Does this decision package include funding for any IT-related costs (hardware, software, services, cloud-based services, contracts or IT staff)?

No

Yes (Include an IT Addendum)

Fiscal Detail**110 - M2 - KA - Purchasing in Our Modern World**

Operating Expenditures	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>
001-1 General Fund-State	1,948,000	1,309,000	672,000	672,000
001-2 General Fund-Federal	427,000	287,000	148,000	148,000
Total Cost	2,375,000	1,596,000	820,000	820,000
Staffing	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>
FTEs	4.0	4.0	0.0	0.0

Performance Measure Detail

Activity:	Incremental Changes			
	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>
Program: 110				
K001 Administration and Supporting Services	0	0	0	0
No measures submitted for package				

Object Detail

	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>
A Salaries and Wages	311,000	154,000	0	0
B Employee Benefits	98,000	49,000	0	0
EY Software Licenses, Maintenance, and Subscription-Based C	573,000	530,000	0	0
EZ Other Goods and Services	1,230,000	775,000	820,000	820,000
J Capital Outlays	151,000	76,000	0	0
TZ Intra-agency Reimbursements	12,000	12,000	0	0
Total Objects	2,375,000	1,596,000	820,000	820,000

DSHS Source Detail**Overall Funding**

Operating Expenditures	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>
Fund 001-1, General Fund-State				
Sources Title				
0011 General Fund State	1,948,000	1,309,000	672,000	672,000
Total for Fund 001-1	1,948,000	1,309,000	672,000	672,000
Fund 001-2, General Fund-Federal				
Sources Title				
FLIV Fed Entered as Lidded (various%)	427,000	287,000	148,000	148,000
Total for Fund 001-2	427,000	287,000	148,000	148,000
Total Overall Funding	2,375,000	1,596,000	820,000	820,000

Information Technology Addendum

Recsum Code and Title 110-M2-KA-Purchasing in Our Modern World

Part 1: Itemized IT Costs

Please itemize any IT-related costs, including hardware, software, services (including cloud-based services), contracts (including professional services, quality assurance, and independent verification and validation) or IT staff. Be as specific as you can. (See Chapter 12.1 of the OFM Operating Budget Instructions for guidance on what counts as “IT-related costs.”)

Information Technology Items in this DP (insert rows as required)	FY 2018	FY 2019	FY 2020	FY 2021
Software purchase	\$ 151,014	\$ 75,507	\$ -	\$ -
Software license	\$ 573,317	\$ 286,658	\$ -	\$ -
Installation costs	\$ 738,003	\$ 369,002	\$ -	\$ -
Server hosting cost (cloud or vendor facility)	\$ 168,000	\$ 84,000	\$ -	\$ -
External QA if Level 2 Project	\$ 78,750	\$ 39,375	\$ -	\$ -
Contingency costs - 15% of implementation	\$ 256,363	\$ 128,181	\$ -	\$ -
Maintenance and Operations	\$ -	\$ 410,139 *	\$ 820,278 **	\$ 820,278 **
One ITS5 Developer for a year and a half	\$ 120,237	\$ 58,982	\$ -	\$ -
One ITS5 Business Analyst for a year and a half	\$ 120,237	\$ 58,982	\$ -	\$ -
One Management Analyst 5 for a year and a half	\$ 84,667	\$ 42,333	\$ -	\$ -
One Management Analyst 5 for a year and a half	\$ 84,667	\$ 42,333	\$ -	\$ -
Total Cost	\$ 2,375,255	\$ 1,595,492	\$ 820,278 **	\$ 820,278 **

* Implementation is estimated to take 18 months. This maintenance and operations (M&O) amount is for the last six months of FY19 after implementation. M&O includes software license (equipment purchase and upgrades) and server hosting cost.

** This includes 12 months of M&O which includes software license (equipment purchase and upgrades) and server hosting cost.. This amount not included in \$3.97M.

Part 2: Identify IT Projects

1. Does this decision package fund the development or acquisition of a new or enhanced software or hardware system or service? **Yes.**
2. Does this decision package fund the acquisition or enhancements of any agency data centers? (See OCIO Policy 184 for definition.) **No.**
3. Does this decision package fund the continuation of a project that is, or will be, under OCIO oversight? (See OCIO Policy 121.) **Yes**

If you answered “yes” to any of these questions, you must complete a concept review with the OCIO before submitting your budget request. Refer to Chapter 12.2 of the Operating Budget Instructions for more information.