

**FY 2024**

**CONGRESSIONAL BUDGET JUSTIFICATION**

**DOL IT MODERNIZATION**

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# DOL IT MODERNIZATION

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## **DOL IT MODERNIZATION**

### **APPROPRIATION LANGUAGE**

For necessary expenses for Department of Labor centralized infrastructure technology investment activities related to support systems and modernization, [\$34,269,000] \$79,193,000, which shall be available through September 30, [2024] 2025.  
*(Department of Labor Appropriations Act, 2023.)*

# **DOL IT MODERNIZATION**

## **EXPLANATION OF LANGUAGE CHANGE**

The Department requests two-year availability to increase flexibility for program execution. The annual uncertainty in the appropriations timing results in delayed hiring and rushed execution of contracts. The multi-year availability would reduce the impact of short-term continuing resolutions at no cost to the annual appropriations bill. This change would also enhance staff oversight of the programs they are administering.

## DOL IT MODERNIZATION

<b>AMOUNTS AVAILABLE FOR OBLIGATION</b>						
(Dollars in Thousands)						
	<b>FY 2022 Revised Enacted</b>		<b>FY 2023 Revised Enacted</b>		<b>FY 2024 Request</b>	
	<b>FTE</b>	<b>Amount</b>	<b>FTE</b>	<b>Amount</b>	<b>FTE</b>	<b>Amount</b>
<b>A. Appropriation</b>	<b>3</b>	<b>\$28,269</b>	<b>13</b>	<b>\$34,269</b>	<b>13</b>	<b>\$79,193</b>
Unobligated Balance Carried Forward	0	\$2,000	0	\$7,902	0	\$0
<i>Subtotal Appropriation</i>	<i>0</i>	<i>\$30,269</i>	<i>13</i>	<i>\$42,171</i>	<i>13</i>	<i>\$79,193</i>
<b>B. Gross Budget Authority</b>	<b>3</b>	<b>\$30,269</b>	<b>13</b>	<b>\$42,171</b>	<b>13</b>	<b>\$79,193</b>
<b>C. Budget Authority Before the Committee</b>	<b>3</b>	<b>\$30,269</b>	<b>13</b>	<b>\$42,171</b>	<b>13</b>	<b>\$79,193</b>
<b>D. Total Budgetary Resources</b>	<b>3</b>	<b>\$30,269</b>	<b>13</b>	<b>\$42,171</b>	<b>13</b>	<b>\$79,193</b>
Unobligated Balance	0	-\$7,902	0	\$0	0	\$0
<b>E. Total, Estimated Obligations</b>	<b>3</b>	<b>\$22,367</b>	<b>13</b>	<b>\$42,171</b>	<b>13</b>	<b>\$79,193</b>

# DOL IT MODERNIZATION

## SUMMARY OF CHANGES

(Dollars in Thousands)

	FY 2023 Revised Enacted	FY 2024 Request	Net Change
<b>Budget Authority</b>			
General Funds	\$34,269	\$79,193	+\$44,924
<b>Total</b>	<b>\$34,269</b>	<b>\$79,193</b>	<b>+\$44,924</b>
<b>Full Time Equivalents</b>			
General Funds	13	13	0
<b>Total</b>	<b>13</b>	<b>13</b>	<b>0</b>

Explanation of Change	FY 2024 Change							
	FY 2023 Base		Trust Funds		General Funds		Total	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
<b>Increases:</b>								
<b>A. Built-Ins:</b>								
To Provide For:								
Costs of pay adjustments	13	\$444	0	\$0	0	\$82	0	\$82
Personnel benefits	0	\$145	0	\$0	0	\$42	0	\$42
Communications, utilities, and miscellaneous charges	0	\$3,443	0	\$0	0	\$0	0	\$0
Printing and reproduction	0	\$0	0	\$0	0	\$0	0	\$0
Advisory and assistance services	0	\$0	0	\$0	0	\$0	0	\$0
Other services from non-Federal sources	0	\$511	0	\$0	0	\$0	0	\$0
Other goods and services from Federal sources	0	\$4,314	0	\$0	0	\$0	0	\$0
Operation and maintenance of facilities	0	\$0	0	\$0	0	\$0	0	\$0
Operation and maintenance of equipment	0	\$23,471	0	\$0	0	\$0	0	\$0
Equipment	0	\$1,941	0	\$0	0	\$0	0	\$0
<b>Built-Ins Subtotal</b>	<b>13</b>	<b>+\$34,269</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>+\$124</b>	<b>0</b>	<b>+\$124</b>
<b>B. Programs:</b>								
Implementation of Cybersecurity Executive Order								
	0	\$0	0	\$0	0	\$44,800	0	\$44,800
<b>Programs Subtotal</b>			<b>0</b>	<b>\$0</b>	<b>0</b>	<b>+\$44,800</b>	<b>0</b>	<b>+\$44,800</b>
<b>Total Increase</b>	<b>13</b>	<b>+\$34,269</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>+\$44,924</b>	<b>0</b>	<b>+\$44,924</b>
<b>Decreases:</b>								
<b>A. Built-Ins:</b>								
To Provide For:								



# DOL IT MODERNIZATION

Explanation of Change	FY 2024 Change							
	FY 2023 Base		Trust Funds		General Funds		Total	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
<b>Built-Ins Subtotal</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>
<b>B. Programs:</b>								
<b>Total Decrease</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>
<b>Total Change</b>	<b>13</b>	<b>+\$34,269</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>+\$44,924</b>	<b>0</b>	<b>+\$44,924</b>

## DOL IT MODERNIZATION

<b>SUMMARY BUDGET AUTHORITY AND FTE BY ACTIVITY</b> (Dollars in Thousands)								
	<b>FY 2022 Revised Enacted</b>		<b>FY 2023 Revised Enacted</b>		<b>FY 2024 Request</b>		<b>Diff. FY24 Request / FY23 Revised Enacted</b>	
	<b>FTE</b>	<b>Amount</b>	<b>FTE</b>	<b>Amount</b>	<b>FTE</b>	<b>Amount</b>	<b>FTE</b>	<b>Amount</b>
<b>Departmental Support Systems</b>	<b>0</b>	<b>4,889</b>	<b>0</b>	<b>6,889</b>	<b>0</b>	<b>51,689</b>	<b>0</b>	<b>44,800</b>
General Funds	0	4,889	0	6,889	0	51,689	0	44,800
<b>IT Infrastructure Modernization</b>	<b>3</b>	<b>23,380</b>	<b>13</b>	<b>27,380</b>	<b>13</b>	<b>27,504</b>	<b>0</b>	<b>124</b>
General Funds	3	23,380	13	27,380	13	27,504	0	124
<b>Total</b>	<b>3</b>	<b>28,269</b>	<b>13</b>	<b>34,269</b>	<b>13</b>	<b>79,193</b>	<b>0</b>	<b>44,924</b>
<b>General Funds</b>	<b>3</b>	<b>28,269</b>	<b>13</b>	<b>34,269</b>	<b>13</b>	<b>79,193</b>	<b>0</b>	<b>44,924</b>

NOTE: FY 2022 reflects actual FTE.

## DOL IT MODERNIZATION

<b>BUDGET AUTHORITY BY OBJECT CLASS</b>					
(Dollars in Thousands)					
		<b>FY 2022 Revised Enacted</b>	<b>FY 2023 Revised Enacted</b>	<b>FY 2024 Request</b>	<b>Diff. FY24 Request / FY23 Revised Enacted</b>
	Full-Time Equivalent				
	Full-time Permanent	0	15	15	0
	<b>Total</b>	<b>0</b>	<b>15</b>	<b>15</b>	<b>0</b>
	Average ES Salary	\$0	\$0	\$0	\$0
	Average GM/GS Grade	0	13/5	13/5	0
	Average GM/GS Salary	\$0	\$122,000	\$122,000	\$0
	Average Salary of Wage Grade Positions	0	0	0	0
11.1	Full-time permanent	0	434	516	82
11.3	Other than full-time permanent	0	10	10	0
11.9	<b>Total personnel compensation</b>	<b>0</b>	<b>444</b>	<b>526</b>	<b>82</b>
12.1	Civilian personnel benefits	0	145	187	42
23.3	Communications, utilities, and miscellaneous charges	130	3,443	3,443	0
24.0	Printing and reproduction	0	0	0	0
25.1	Advisory and assistance services	640	0	44,800	44,800
25.2	Other services from non-Federal sources	0	511	511	0
25.3	Other goods and services from Federal sources 1/	1,431	4,314	4,314	0
25.4	Operation and maintenance of facilities	0	0	0	0
25.7	Operation and maintenance of equipment	20,858	23,471	23,471	0
31.0	Equipment	5,210	1,941	1,941	0
	<b>Total</b>	<b>28,269</b>	<b>34,269</b>	<b>79,193</b>	<b>44,924</b>
	1/Other goods and services from Federal sources				
	Services by Other Government Departments	1,431	4,314	4,314	0

## DOL IT MODERNIZATION

<b>APPROPRIATION HISTORY</b>					
(Dollars in Thousands)					
	<b>Budget Estimates to Congress</b>	<b>House Allowance</b>	<b>Senate Allowance</b>	<b>Appropriations</b>	<b>FTE</b>
2014					
Base Appropriation	\$20,587			\$19,778	0
2015					
Base Appropriation	\$30,578			\$15,394	0
2016					
Base Appropriation	\$119,602			\$29,778	0
2017					
Base Appropriation	\$63,162			\$18,778	0
2018					
Base Appropriation...1/	\$29,722	\$20,769		\$20,769	0
2019					
Base Appropriation...1/		\$29,169	\$20,769	\$23,269	0
2020					
Base Appropriation...2/	\$37,000	\$37,000	\$23,269	\$25,269	0
2021					
Base Appropriation	\$37,000			\$27,269	0
2022					
Base Appropriation...3/	\$26,569			\$28,269	3
2023					
Base Appropriation	\$37,269			\$34,269	13
2024					
Base Appropriation	\$79,193				13

<sup>1</sup> This bill was passed by the Senate. It was passed out of the House Subcommittee but was not reported out of the House Committee or by the full House.

<sup>2</sup> This bill was passed by the House. It was not taken up by the Senate Appropriations Subcommittee or full Appropriations Committee.

# DOL IT MODERNIZATION

## OVERVIEW

The Information Technology Modernization (ITM) appropriation is managed by the Office of the Chief Information Officer (OCIO). OCIO is dedicated to providing information technology (IT) leadership, products, and support for DOL. OCIO plays a critical leadership role in driving reforms to help control system development efforts, better manage technology spending, and succeed in achieving real, measurable improvements in mission performance. The office provides guidance and support in Chief Information Officer (CIO) directives for capital planning, IT security, information management, and enterprise architecture.

The ITM appropriation provides resources for Department-wide investments, including the resources for IT security enhancement modernization efforts, accelerated adoption of cloud-based computing solutions, consolidation of infrastructure and networks, and the modernization of legacy IT systems and applications. The appropriation is one of the funding mechanisms used by the Department to fund IT. The Working Capital Fund (WCF) funds Department-wide IT operations; agencies also fund the development and the operational costs for their specific applications through the WCF. The Departmental Management account provides policy development and oversight for all IT activities.

DOL will use these funds to make significant investments in the resources required by the Executive Order to protect DOL data and services and to meet the requirements for “Modernizing Federal Government Cybersecurity”. The technically complex work required for compliance includes adoption of multi-factor authentication, encryption of all data at rest and data in transit, migration to a zero-trust architecture, enhanced system event logging and retention, and deploying endpoint detection and response. DOL is supportive of these Executive initiatives and believes they have significant security value, without the funds requested, DOL risks being unable to comply.

Utilizing information technology in reshaping equity in workforce development can help ensure job quality for all workers, increase competitiveness, and drive inclusionary growth. To guarantee better coverage and protections for American workers, DOL and OCIO are committed to pursuing improved data capabilities and tools that promote evidence-based decisions to allow the Department to deliver customer-driven services more efficiently, effectively, and potentially at a lower cost within an environment of continuous improvement. Moving DOL towards a more data-driven culture requires improvements in both enterprise data capabilities and data literacy. As a supporting tenet of the DOL Data Strategy, DOL recognizes that data is a true enterprise asset and is focused on being a data-driven organization and unleashing the power of information.

Without the requested resources in FY 2024, OCIO will need to extend initiative timelines, in many cases by multiple years. These delays will have significant downstream impacts on the budget, planning, and implementation efforts of several agencies working to modernize mission applications in the medium term. The disruption would delay citizen-impacting benefits prioritized by the Administration for programs affecting mine safety, visa processing, grants management, retirement benefits assurance, and oversight requirements for association health plans. Extending these timelines will significantly increase OCIO and agency costs, increase duplication of effort, lead to excess of single-point solutions, and increase the overall complexity

## DOL IT MODERNIZATION

of the IT landscape that DOL is working to simplify. In a worst-case scenario, the delay could even derail modernization plans altogether.

These resources work in concert with the request for changes to the Department's Working Capital Fund transfer authority discussed in the Working Capital Fund request. This fund will further enable agencies to leverage OCIO's expertise and capacity to execute IT projects.

### Cybersecurity Spending:

The table below includes the total for each of the Institute of Standards and Technology categories (Identify, Protect, Detect, Respond, Recover). The dollars are in millions:

<b>NIST Framework / Capability</b>	<b>FY2024 President's Budget</b>
M-22-16 - Cyber Human Capital	\$0.588
M-22-16 - Securing Infrastructure Investments	\$0.443
M-22-16 - Sector Risk Management Agency (SRMA)	\$0.443
Identify	\$32.331
Protect	\$66.281
Detect	\$8.758
Respond	\$11.503
Recovers	\$3.869
<b>Total</b>	<b>\$124.216</b>

## DEPARTMENTAL SUPPORT SYSTEMS

<b>BUDGET AUTHORITY BEFORE THE COMMITTEE</b>				
(Dollars in Thousands)				
	<b>FY 2022 Revised Enacted</b>	<b>FY 2023 Revised Enacted</b>	<b>FY 2024 Request</b>	<b>Diff. FY24 Request / FY23 Revised Enacted</b>
<b>Activity Appropriation</b>	<b>4,889</b>	<b>6,889</b>	<b>51,689</b>	<b>44,800</b>
FTE	0	0	0	0

NOTE: FY 2022 reflects actual FTE. Authorized FTE for FY 2022 was 0.

### **Introduction**

The Departmental Support Systems (DSS) activity supports enterprise-wide information technology security enhancement initiatives. These initiatives facilitate a centrally managed IT environment with increased security parameters to protect the integrity of DOL data and network availability. DOL achieves these efforts through several new and ongoing projects mandated by executive and Congressional directives.

Activities funded in DSS include Identity and Access Management, Continuous Diagnostics and Mitigation, Cybersecurity Executive Direction, a shift to continuous system security assessments and monitoring, and enhancements enabling more secure personnel off-boarding processes.

Notably, these advancements are reflected in DOL’s Federal Information Security Management Act (FISMA) and Federal Information Technology Acquisition Reform Act (FITARA) scores. In the latest FITARA scorecard, DOL was one of only nine agencies to score a B or higher in the FITARA Cybersecurity category.

DOL is working to meet the requirements of the Cybersecurity Initiatives in support of Executive Order 14028, “Improving the Nation’s Cybersecurity” by fast-tracking initiatives in support of the effort and has determined that funds are necessary in the near-term. The technically complex work required for compliance includes adoption of multi-factor authentication, encryption of all data at rest and data in transit, migration to a zero-trust architecture, enhanced system event logging and retention, and deploying endpoint detection and response.

### **Five-Year Budget Activity History**

<b><u>Fiscal Year</u></b>	<b><u>Funding</u></b> (Dollars in Thousands)	<b><u>FTE</u></b>
2019	\$4,889	0
2020	\$4,889	0
2021	\$4,889	0
2022	\$4,889	0
2023	\$6,889	0

## DEPARTMENTAL SUPPORT SYSTEMS

### FY 2024

The FY 2024 request for DSS is \$51,689,000 which includes \$44,800,000 to implement the requirements under Executive Order (EO) 14028, Improving the Nation's Cybersecurity (May 12, 2021). Without specific funding for the project, DOL will need to reprioritize other IT efforts and draw funding from program areas. This will result in, at best, incremental progress toward the target state. DOL estimates that without additional funding requested the agency will not realize the benefits of a completed project (i.e., improved security and resiliency against increasing threats) for 6 to 8 years as opposed to 2 to 3 years with proper funding support.

In an effort to Protect the Integrity, Confidentiality, and Availability of Services through Cybersecurity at DOL, critical enhancements to the Department's infrastructure is required to bolster defenses against sophisticated attacks such as those revealed in the SolarWinds, Microsoft Exchange, and Colonial Pipeline ransomware incidents; improve the Department's ability to protect services and data from disruption or compromise by nation-state actors; and to meet the newly required objectives of the EO. The DOL may be a target of sophisticated cyber-attacks as it both maintains vital information for and about the American public, and supports critical citizen services, such as unemployment benefits, economic data reports, and workplace safety inspections. Without this funding, DOL data and services could be compromised potentially exposing millions of citizens to identity theft, delaying delivery of benefits, putting in jeopardy the integrity of economic data, and disrupting workplace safety inspections.

Implementation of these new technologies and procedures will better prepare the DOL to prevent, mitigate and recover if needed from future cybersecurity events. This initiative will include a number of projects to add, upgrade, and modernize the cybersecurity posture of DOL. Some of these projects will modernize existing technologies and applications while some will introduce new technologies in order to improve DOL cybersecurity. These projects support the mission of the DOL and the President's Management Agenda by ensuring the privacy of data, the security of systems and applications used by the DOL to assist the public, and the ability to continuously monitor systems and networks for incidents/threats to allow DOL to conduct the mission objectives. The projects in this proposal will modernize the security of high-priority agency systems, improve protections to public-facing digital services provided by DOL, and provide more comprehensive event data to Department of Homeland Security/Cybersecurity and Infrastructure Security Agency (DHS/CISA) for better cross-government collaboration on cybersecurity incidents.

Specific initiatives from Executive Order 14028 to be funded include:

- **Zero Trust Architecture**
  - Obtain and deploy an enterprise-level Secure Access Service Edge (SASE) solution to provide micro-segmentation and service protection through security policy decision and enforcement points.
  - Integrate the Zero Trust Architecture with existing capabilities such as incident detection and response, development, security, and operations (DevSecOps), and Identity, Credentialing, and Access Management (ICAM).
- **Identity, Credentialing, and Access Management:** The ICAM program ensures authorized DOL users have the appropriate access to technology resources at the right



## DEPARTMENTAL SUPPORT SYSTEMS

times and for the right reasons, seamlessly and securely. A common platform for ICAM enables the application of uniform security policies across all DOL devices and operating platforms. The Identity Management tools de-provision federal employees and ultimately address FISMA findings related to the timely removal of identities from IT Systems when employees leave DOL. DOL's password management tool, ICAM, houses passwords for 900+ service accounts. Further, ICAM's Self Service Password and Multifactor Authentication has a 99.1 percent adoption rate and has reduced password reset related helpdesk calls by approximately 4,300 a month.

- Extend existing SSO initiative to include global identity awareness across cloud and on-premises environments.
- Complete deployment of Privileged Access Management (PAM) Solution to fully orchestrate the identity lifecycle, dynamic user profiling, dynamic identity, and group membership, along with just-in-time and just-enough access controls are implemented.
- Integrate ICAM with the Zero Trust Architecture.
- **Cybersecurity Supply Chain Risk Management:** DOL will build out a comprehensive cybersecurity supply chain risk management program that meets federal requirements included in the "Executive Order on Improving the Nation's Cybersecurity."
- **Enhanced Event Logging:** In accordance with the Executive Order and OMB memorandum M-21-31, DOL will expand its current log storage and processing capability to meet Event Log maturity level 3 (EL3).

Other key cybersecurity advancements planned with this funding include:

- **Audit Management Program:** To enhance the cybersecurity identity capabilities, DOL worked to enable an audit management program that improves Cyber Security Division (CSD) processes of improving internal coordination to become better prepared for audits, by streamlining collaboration for Factual Accuracy (FA) and Notification of Finding and Recommendation (NFR) responses. In FY 2024, DOL will continue the work to enable an audit management program that improves Cyber Security Division (CSD) processes to coordinate better internally, better prepare for audits, improve collaboration for Factual Accuracy (FA) and Notification of Finding and Recommendation (NFR) responses, and allow for timely responses to reduce findings and eliminate repeat findings.
- **Information System Continuous Monitoring:** Information systems require continuous monitoring and maintenance to detect and correct software vulnerabilities and configuration errors promptly before any damage to systems or data can occur. To address this issue, DOL deploys and operates state-of-the-art IT monitoring and management tools – many acquired through the Department of Homeland Security's (DHS) Continuous Diagnostic and Mitigation (CDM) program. Leverage the DHS CDM program to modernize and expand ability to monitor and alert in near real time for security weaknesses on DOL information systems.

### **FY 2023**

The FY 2023 funding level for DSS is \$6,889,000. This level supports the following cybersecurity modernization efforts:

- **Identity Credential and Access Management**

## DEPARTMENTAL SUPPORT SYSTEMS

- Extend existing SSO initiative to include global identity awareness across cloud and on-premises environments.
- Complete deployment of Privileged Access Management (PAM) Solution to fully orchestrate the identity lifecycle, dynamic user profiling, dynamic identity, and group membership, along with just-in-time and just-enough access controls are implemented.
- In support of the Zero Trust Initiative and M-22-09, DOL is moving to a trusted internet connection 3.0 (TIC 3.0) to design and implement the rollout of a SDWAN capability and implement a zero-trust architecture.
- **Audit Management Program:** Continue the work to enable an audit management program that improves Cyber Security Division (CSD) processes to coordinate better internally, better prepare for audits, improve collaboration for Factual Accuracy (FA) and Notification of Finding and Recommendation (NFR) responses, and allow for timely responses to reduce findings and eliminate repeat findings.
- **Ongoing Authorization:** Continue the transition of all OCIO-managed information systems into Ongoing Authorization (OA). Develop OA executive dashboards to inform OA status and decisions.

### FY 2022

The FY 2022 funding level for DSS was \$4,889,000. Funding at this level enabled OCIO to maintain necessary enterprise-wide information technology security. FY 2022 initiatives included:

- *Identity Credentialing and Access Management (ICAM):* In FY 2022, DOL implemented the user access certification features of the Identity Management system that provide functionality to enable, review, and certify access to applications across the Department. Other activities included consolidating and upgrading the ICAM tools to maintain security at DOL and reducing the overall cost by decommissioning the legacy application.
- *Continuous Diagnostic and Mitigation (CDM) Program:* In FY 2022, obtained necessary software licenses to maintain current deployments and to increase the effectiveness, accuracy, and coverage of IT monitoring and management tools to all corners of the DOL IT enterprise; to improve data quality and accuracy; and to produce more informative alerting and reporting outputs.
- *Cybersecurity Functions:* In FY 2022 the Department completed the transition of all OCIO-management information systems into Ongoing Authorization (OA). DOL also continued to bolster the cybersecurity protection functions by providing cybersecurity preparedness training for all personnel during National Cybersecurity Awareness Month (NCSAM), through optimizing existing tools and extending usage to increase integration, identify and remediate risks, and improve sharing of information tools and extending usage to increase integration, identify and remediate risks, and improve sharing of information.

## DEPARTMENTAL SUPPORT SYSTEMS

<b>WORKLOAD AND PERFORMANCE SUMMARY</b>					
		<b>FY 2022 Revised Enacted</b>		<b>FY 2023 Revised Enacted</b>	<b>FY 2024 Request</b>
		<b>Target</b>	<b>Result</b>	<b>Target</b>	<b>Target</b>
<b>Departmental Support Systems</b>					
<b>Strategic Goal 5 - A Department Grounded in Innovation, Evidence, and Employee Engagement</b>					
<b>Strategic Objective OASAM M.1 - Drive innovation in administrative, management, and financial services.</b>					
OASAM- WCF-OCIO- 46S-DOL	Percentage of Open Plan of Action and Milestones (POAMs), assigned to OCIO-managed information systems, with a valid (i.e. not past due) planned finish date	95%	100%	95%	95%
OASAM- WCF-OCIO- 51	Number of DOL applications with simplified sign-on capability	95	108	120	140

Legend: (r) Revised (e) Estimate (base) Baseline -- Not Applicable TBD - To Be Determined [p] - Projection

## DEPARTMENTAL SUPPORT SYSTEMS

### Workload and Performance Narrative

DOL continues to focus on reducing the impact of cybersecurity risks by safeguarding IT systems, sensitive data, and networks. In FY 2022, DOL, took a number of steps to improve security in response to the increased teleworking environment. The Department adapted and matured client endpoint security, increased Web Application Firewalling, and implemented cloud-based solutions to enable secure information sharing and manage access in a remote environment. DOL also increased the use of hard tokens for multi-factor authentication (MFA) to maintain continuity and security for staff unable to obtain and renew PIV credentials in person.

In FY 2022, DOL designed, tested, and implemented a new CDM dashboard that utilizes a Cloud-Forward approach, improves user experience, and utilizes agile technologies. Over the past year, DOL also developed a new data-driven compliance dashboard to provide leadership with enhanced insights, oversight, and awareness of activities associated with system documentation, Plans of Actions and Milestones (POA&MS), and trends for resources. This dashboard has proven to be effective in helping DOL keep the percent of POA&Ms with a valid planned finish date to 100%, exceeding the initial target of 95%. DOL will continue to aim to keep the percent of POA&Ms with planned finished date to at least 95% in FY 2023 and FY 2024.

In addition, the Department surpassed their FY 2022 target of 95 DOL application with simplified sign-on capability with a result of 108 and will target 120 applications in FY 2023 and 140 in FY 2024 to further improve DOL's cybersecurity posture.

## DEPARTMENTAL SUPPORT SYSTEMS

<b>BUDGET ACTIVITY BY OBJECT CLASS</b>					
(Dollars in Thousands)					
		<b>FY 2022 Revised Enacted</b>	<b>FY 2023 Revised Enacted</b>	<b>FY 2024 Request</b>	<b>Diff. FY24 Request / FY23 Revised Enacted</b>
11.1	Full-time permanent	0	0	0	0
11.9	Total personnel compensation	0	0	0	0
23.3	Communications, utilities, and miscellaneous charges	130	0	0	0
24.0	Printing and reproduction	0	0	0	0
25.1	Advisory and assistance services	500	0	44,800	44,800
25.2	Other services from non-Federal sources	0	0	0	0
25.3	Other goods and services from Federal sources 1/	1,100	797	797	0
25.4	Operation and maintenance of facilities	0	0	0	0
25.7	Operation and maintenance of equipment	3,159	5,592	5,592	0
31.0	Equipment	0	500	500	0
	<b>Total</b>	<b>4,889</b>	<b>6,889</b>	<b>51,689</b>	<b>44,800</b>
	1/Other goods and services from Federal sources				
	Services by Other Government Departments	1,100	797	797	0

# DEPARTMENTAL SUPPORT SYSTEMS

## CHANGES IN FY 2024

(Dollars in Thousands)

**Activity Changes**

**Built-In**

To Provide For:

Costs of pay adjustments	\$0
Communications, utilities, and miscellaneous charges	0
Printing and reproduction	0
Advisory and assistance services	0
Other services from non-Federal sources	0
Other goods and services from Federal sources	0
Operation and maintenance of facilities	0
Operation and maintenance of equipment	0
Equipment	0

**Built-Ins Subtotal** **\$0**

**Net Program** **\$44,800**

**Direct FTE** **0**

	Estimate	FTE
<b>Base</b>	<b>\$6,889</b>	<b>0</b>
<b>Program Increase</b>	<b>\$44,800</b>	<b>0</b>
<b>Program Decrease</b>	<b>\$0</b>	<b>0</b>

# IT INFRASTRUCTURE MODERNIZATION

<b>BUDGET AUTHORITY BEFORE THE COMMITTEE</b>				
(Dollars in Thousands)				
	<b>FY 2022 Revised Enacted</b>	<b>FY 2023 Revised Enacted</b>	<b>FY 2024 Request</b>	<b>Diff. FY24 Request / FY23 Revised Enacted</b>
<b>Activity Appropriation</b>	<b>23,380</b>	<b>27,380</b>	<b>27,504</b>	<b>124</b>
FTE	3	13	13	0

NOTE: FY 2022 reflects actual FTE. Authorized FTE for FY 2022 was 3.

## **Introduction**

OCIO leverages IT Infrastructure Modernization (ITIM) to fund initiatives that increase user productivity and allow DOL to provide better services, while also eliminating cost redundant infrastructures and creating a more reliable, secure, and consistent IT infrastructure across the Department. ITIM initiatives support the consolidation of existing DOL agencies’ infrastructure to gain economies of scale, eliminate duplication, and implement new capabilities. All of these benefits result in a more agile DOL workforce, able to provide enhanced services and benefits for the public. Efforts funded in this activity include the implementation of business process management and business intelligence capabilities on the enterprise-wide DOL IT platform, migration to cloud, Unified Communications, and continued investment into innovative solutions like Robotic Process Automation (RPA), Artificial Intelligence, and Machine Learning.

## **Five-Year Budget Activity History**

<b><u>Fiscal Year</u></b>	<b><u>Funding</u></b> (Dollars in Thousands)	<b><u>FTE</u></b>
2019	\$18,380	0
2020	\$20,380	0
2021	\$22,380	0
2022	\$23,380	3
2023	\$27,380	13

## **FY 2024**

The FY 2024 request for ITIM is \$27,504,000. The program funding is required in order to continue the buildout of the DOL cloud environment and IT platform capabilities. Many of DOL’s critical mission systems have been built over the course of years to meet unique mission requirements and have disparate system architectures that are unsuitable for cloud migration without significant redesign and reengineering. The program requires these funds to enable the timely transition and sequencing of legacy mission systems and applications for migration to the cloud and the DOL IT platform. The funding will also support continuing the implementation of shared service provisioning capabilities and service consolidation to centralized provisioning platforms.

## IT INFRASTRUCTURE MODERNIZATION

As the Department continues investing in modernization initiatives it is also investing in acquiring Federal staff to oversee, manage and execute these efforts. The added investment in the Federal workforce now, is particularly important since the Department's migration into Enterprise-wide Shared Services resulted in a greater demand for IT, including the IT security enhancement modernization efforts, accelerated adoption of cloud-based computing solutions, consolidation of infrastructure and networks, and the modernization of legacy IT systems and applications. Reducing reliance on contracting and investing in the Federal workforce ensures that modernization planning and project execution is consistent with the objectives of the Department and achieves the required return on investment for taxpayers. The institutional knowledge of business requirements and processes that is gained and maintained by Federal employees is also critical to the long-term success of modernization initiatives and results in individuals who are engaged and dedicated to the Department's mission and the success of the organization.

DOL continues to make foundational progress and advance modernization efforts and has reached an operational state with key bureau modernization project plans. Yet, DOL does not have the resources to maintain a healthy modernization investment level. To tip the investment scale towards modernization, there is a need for continued investment in delivery of new services to facilitate agency modernization momentum. As the shared service consolidations have completed, the focus is now on ways to improve efficiency across the new enterprise. The endeavor entails redesign of administrative business processes and enablement of the resulting improved workflows. Increased funding will also support the enterprise-wide implementation of the Technology Business Management (TBM) framework for improvements in IT cost visibility and management.

The Department's technical strategy works in concert with the Department's Cloud Smart Initiative and is in alignment with an accelerated cloud adoption strategy. Modernization initiatives include the consolidation of logically separate networks/directories, continued Identity and Access Management rollout, and advancement of an expanded 24/7 cybersecurity enterprise security operations center (ESOC). Additionally, the Department is continuing to work on maturing its Cybersecurity Governance efforts by addressing the shared services model, developing an enhanced privacy program, developing its electronic records information management compliance and controlled unclassified information management programs, developing the Enterprise Risk Tracking and Prioritization tools, as well as improving on the previously identified data quality issues in the Continuous Diagnostics and Mitigation (CDM) dashboard.

The FY 2024 funding levels will support enhancement of foundational capabilities previously established to accelerate DOL mission improvement and application modernization. To help DOL modernize business systems by utilizing proven and cutting edge solutions, several Centers of Excellence (COE) are being stood up to facilitate cloud migration, case management functionality, data analytics and management, enterprise architecture, and mobile application design and development. DOL COEs will house centralized expertise and techniques for propagation across subsequent modernization efforts to continuously improve design and minimize development. For instance, the Mobile App COE is charged with ensuring information and services are delivered to everyone that need them, to any device at any time. This COE's



## IT INFRASTRUCTURE MODERNIZATION

work will have a significant impact on underserved populations that lack computers and/or broadband at home. Further, the Innovation incubator will continue to explore emerging technologies to mature and scale this exploration of Robotic Process Automation, Artificial Intelligence, enterprise data governance, implementation of 5G wireless technology, integrated IT operational platform, and financial management capabilities, serving the needs of the increasingly mobile public and DOL workforce to enhance centralized document intake and records information management by implementing a content service portal.

In FY 2024, DOL plans to continue its migration of additional applications to the Department cloud while leveraging a hyper-converged infrastructure to quickly and easily implement application hosting; whether dedicated, virtualized, or cloud-hosted. This strategic effort supports DOL's goal to reduce its on premise footprint by continuously evaluating aging equipment and data center transitions while maintaining operations and moving parts into the cloud. OCIO's effort will continue in leveraging the Virtual Desktop Infrastructure (VDI) Remote Access pilot results to centralize desktop provisioning from a secure cloud environment and enable a unified user desktop experience from any internet-connected device. VDI saves hardware costs due to the procurement of compact computing devices like thin client, zero client, Bring Your Own Device (BYOD). VDI will decrease provisioning and deployment time by using packages, as opposed to working on single workstations. The VDI system will deliver efficiencies enterprise-wide.

DOL continues building out the Data Analytics Capability across the Department in an effort to improve the use of data for decision-making and accountability by implementing enterprise data management and data analytics capabilities on the DOL IT platform. These capabilities ease integration of data from across organizational silos, provide users with tools to develop custom reports and visualizations, and provide self-service analytics to drive evidence-based mission management and decision-making across Program boundaries where allowable. In FY 2024 the team will initiate a data quality baseline at Labor by establishing DOL's Enterprise Data Catalog (EDP) while developing and implementing data services to meet agency and program demands. The discipling will work on developing standards and best practices for adopting a cloud-based enterprise data warehouse. Other areas of focus will be on managing the EDP Operation and providing tenant support and continuous operations activities. This includes, Deployment Facilitation, EDP Security, Issue Resolution, Architecture Consultation, Configuration Management, Cost Reporting, and Data Calls. DOL is also utilizing Advanced Engineering capabilities to optimize spending on technologies that reduce costs and increase efficiency. The team develops solutions in a secure and controlled environment to ensure maximum benefit and adoption. Advanced Engineering evaluates existing systems and solutions for the potential to reduce operating costs through optimization and modernization and maximize return on investment and cost avoidance. In FY 2024, the team will focus on the assessment of existing and new technologies for modernization while continuing their work with agencies on new Demands for technology.

In an effort to leverage data to advance fact-based decisions and promote positive customer experiences, DOL is utilizing appropriated Technology Modernization Fund (TMF) funding to drive its enterprise data modernization initiative which will support the Department's mission areas by allowing for the more effective deployment of DOL resources, unlocking the

## IT INFRASTRUCTURE MODERNIZATION

Department's enterprise data sources, creating data management capacity, and ensuring timely delivery of appropriate information to the right DOL staff and partner agencies in a secure manner. OCIO has already implemented the Enterprise Data Platform (EDP) to improve how DOL collects, manages, and analyzes complex data and enables better decision-making. EDP provides data analytics and visualization capabilities for our workforce to explore data, pinpoint trends, make data-driven decisions, and forecast outcomes through immersive dashboards and advanced analytics.

DOL is instituting a "Leading-Example" workforce by investing in technology and staffing resources to develop and execute processes that improve Information and Communication Technology (ICT) compliance with Section 508 and conformance to accessibility standards. These processes will ensure that compliance and conformance requirements are addressed throughout the technology lifecycle, from design through testing and ongoing maintenance. DOL's Section 508 Program Office will consolidate and report metrics in all five Section 508 Maturity Domains (Acquisitions, Training, Technology Lifecycle, Testing and Validation, and Complaint Management) and provide departmental leadership with actionable information. Additionally, the Section 508 Program Office will continue to evolve metrics to drive continuous process improvements in all five Domains. Application modernization efforts will prioritize compliance with Section 508 of the Rehabilitation Act 1973 (29 U.S.C. §794d). Specifically, development efforts will utilize the resources and tools provided by the DOL Section 508 Program Office to ensure accessibility by internal and external users of DOL systems.

DOL will realize IT modernization return on investment (ROI) in several aspects by strategically optimizing support through value, transparency, and effectiveness. DOL will gain increased productivity and faster processing times for case adjudications through standardized business processes and automated workflows. This will result from the continued transition of case management systems to the DOL IT platform based on prudent business process redesign. DOL will also realize quantifiable cost savings through operating the various mission and case management systems within the centralized, cloud-based platform. Centralized hosting and management will simplify the physical IT infrastructure, improve visibility over case management performance, enable greater flexibility in staff and workload management, and provide common interfaces across all case management processes to reduce on-boarding and training/cross training time and resource costs.

### **FY 2023**

The FY23 funding of \$27,380,000 will continue to enable DOL to implement its IT modernization agenda and overall IT strategy, which will include the following initiatives.

- Stand up a Community of Practice (COP) to expand the work in helping Agencies leverage mobile applications in executing their mission work.
- Conduct annual reviews for potential Data Center relocation based on aging equipment and associated costs of maintaining operations of moving parts into the cloud.
- Continue the ServiceNow work for cataloging Customer Service Management for public facing DOL applications supported in OCIO and Facilities Service Management for the Business Operations Center in OASAM (BOC).

## IT INFRASTRUCTURE MODERNIZATION

- Focus on further Expanding the Service Catalog that will include application, services, service offerings, and service capabilities
- Expand into Financial Service Management automated and Procurement workflows for OCIO
- Pilot a Virtual Desktop Infrastructure (VDI) solution and evaluate the impact/potential cost savings of making this the option for new contractors as they come on board instead of getting Government Furnished Equipment (GFE)s.
- Enhance Performance Management Center (PMC) Dashboards and provide operations/maintenance with a focus on automating Employment dashboard source data ingestion and enhancing data encryption, access, and security.
- Continue the expansion of the Innovation Incubator with the launch of the Artificial Intelligence Community of Practice and Community of Excellence.
- Continue to utilize the DOL Innovation process to showcase new technologies to agencies, while working their counterparts in Emerging Technology to develop sound infrastructure solutions to support on-going requests for Artificial Intelligence/Machine Learning (AI/ML) technologies.
- In support of the Enterprise Data platform the team will initiate a data quality baseline at Labor by establishing DOL's Enterprise Data Catalog; develop and implement data services to meet agency and program demands; develop standards and best practices for adopting a cloud-based enterprise data warehouse and manage the EDP Operation providing tenant support and continuous operations activities. This includes, Deployment Facilitation, EDP Security, Issue Resolution, Architecture Consultation, Configuration Management, Cost Reporting, and Data Calls.
- The Section 508 Program Office will develop and conduct additional training for developers, and plans on developing an overview training for the Conformance Testing Strategy to promote the use of the Technical Development Resource. This also included identifying a pilot group to use the Web Content Accessibility Guidelines (WCAG) Report Tool. Other activities planner are: reviewing internal 508 policy and checklist, have provided initial feedback, and offer the collaboration sessions to work improve these internal-use tools.
- Establishing a list of OCIO-supported systems to capture basic 508 compliance metrics and focusing on establishing a baseline in the five domains, with basic quantitative metrics.

### **FY 2022**

The FY 2022 revised enacted funding level for ITIM was \$23,380,000. High priority activities in FY 2022 included the following:

- Completed setting up the mobile applications COE to facilitate agency mobile application development by providing guidance and to facilitate agency mobile application development by providing guidance and assistance in assessing agency applications, data sets, and web-enabled content for optimal mobile enablement. Successful Applications included:
  - Mine Safety & Health - Gives mine workers instant access to information that can help keep them safe and healthy on the job. Prior to the app, miners only received essential information from managers, miner representatives and MSHA inspectors

## IT INFRASTRUCTURE MODERNIZATION

on site. Now, miners can use the app to receive important safety alerts, learn about safety and health best practices that apply to their daily work, better understand their rights and responsibilities, and contact MSHA with a question or to report an accident or hazard.

- DOL Timesheet - Lets employees record their hours accurately, and track regular hours, break times and overtime hours worked. If there are concerns about whether they are receiving the pay owed, the app provides resources for further assistance from WHD. Employers can use the application to keep track of the various types of pay for their workers, such as hourly or salaried.
- CareerInfo - Takes the Bureau of Labor Statistics' most popular resource, the Occupational Outlook Handbook, and creates a digital version for easy access on a mobile device. With more than 33,000 total downloads, workers, job seekers, students and others can quickly find information about the pay, career outlook, necessary education and other details for hundreds of jobs.
- Completed the migration of Data Center West: relocating the disaster recovery (DR) data center from the current St Louis, MO site to a location in a demographically separate region than the primary data center in Ashburn, VA.
- Migrated additional applications to the Department cloud while leveraging a hyper-converged infrastructure to quickly and easily implement application hosting; whether dedicated, virtualized, or cloud-hosted.
- Completed requirements and market research for a DOL Reservation System tool selection.
- Centralized the desktop provisioning from a secure cloud environment in support of the VDI effort and migrated the on-premise BAS Developer VM environment to the cloud based Azure Virtual Desktop (AVD) solution. This effort aims to enhance reporting capability and provide just-in-time resources to meet Developer/Agency needs.
- Deployed the out-of-box Strategic Portfolio Management module in ServiceNow has enabled data-driven evaluation and approvals within Demand Management. Coupled with automation between Portfolio Project Management, a streamlined handoff and data transition can now occur – sharing key details regarding budget, requirements, scope, stakeholders, and timelines with project delivery teams. This has huge impacts for the roll-up into investments, investment reporting, and budget formulation for IT.
- Enabled Service Management to scale and take advantage of ever evolving ServiceNow technologies by rebuilding the core IT Service Management (ITSM) capabilities including Incident, Problem, Change, and Knowledge.
- Completed Unified Communication network upgrades to six of the largest regional/field offices and additional MSHA and OFCCP offices
- Completed 15 budget and performance dashboards, along with enhancements to minimize process cycle time for refreshes using Amazon Web Services (AWS) Cloud platform for scalability and efficiency.
- Deployed a VTC refresh at OFCCP offices and UC network upgrades to 6 of the largest regional/field offices and additional MSHA and OFFCP offices, while completing deployment at the BLS Postal Square Office. DOL has implemented an integration solution with Microsoft Teams and the standard DOL video conferencing system as part of OCIO's commitment for "return to work." Identified an integration solution with Microsoft Teams and the standard DOL video conferencing system as part of OCIO's

## IT INFRASTRUCTURE MODERNIZATION

commitment for “return to work.” Completed the Digital Signage Pilot to identify a solution to provide a centralized capability to send visual information to electronic displays within the building. The system provides capability for distributing curated subscribed content (such as localized AP news feeds, Twitter feed of Official DOL Accounts, local and National Weather, local public Transportation and traffic reports), emergency alerts (originating from Informacast), and DOL internally designed content.

- In support on the Innovation Incubator effort the team scaled Robotics Process Automation (RPA) capability and Artificial Intelligence to include Responsible Implementation and Artificial Intelligence Operations while also piloting initial AI operations plan.
- Established a Research & Development (R&D) and Proof of Concept (POC) environment for both primary DOL Cloud providers and supported the cloud infrastructure for Emerging Technology solutions, to include RPA, Cognitive Services, Form Recognition and Translation services.
- Launched its first cloud-based enterprise data warehouse to Production, deploying the EDP Advanced Analytics capability to provide several advantages for data scientists to interact with data at rest stored in the Enterprise Data Warehouse (EDW).
- The EDP Operations and Management standards were hardened and now leverage DOL best practices for submitting tickets, managing security requirements, upgrading system components and provisioning capabilities
- The EDP has deployed both Data Governance and Data Management capabilities as a shared service.
- The Section 508 Program Office issued the DOL Section 508 Conformance Testing Strategy to help development teams incorporate accessibility testing as appropriate throughout the tech lifecycle and promoted existing Technical Development Resources to help development teams with existing “best practices” regarding accessibility and recommended the use of the W3C’s WCAG Report Tool.

## IT INFRASTRUCTURE MODERNIZATION

<b>BUDGET ACTIVITY BY OBJECT CLASS</b>					
(Dollars in Thousands)					
		<b>FY 2022 Revised Enacted</b>	<b>FY 2023 Revised Enacted</b>	<b>FY 2024 Request</b>	<b>Diff. FY24 Request / FY23 Revised Enacted</b>
11.1	Full-time permanent	0	434	516	82
11.3	Other than full-time permanent	0	10	10	0
11.9	<b>Total personnel compensation</b>	<b>0</b>	<b>444</b>	<b>526</b>	<b>82</b>
12.1	Civilian personnel benefits	0	145	187	42
23.3	Communications, utilities, and miscellaneous charges	0	3,443	3,443	0
24.0	Printing and reproduction	0	0	0	0
25.1	Advisory and assistance services	140	0	0	0
25.2	Other services from non-Federal sources	0	511	511	0
25.3	Other goods and services from Federal sources 1/	331	3,517	3,517	0
25.4	Operation and maintenance of facilities	0	0	0	0
25.7	Operation and maintenance of equipment	17,699	17,879	17,879	0
31.0	Equipment	5,210	1,441	1,441	0
	<b>Total</b>	<b>23,380</b>	<b>27,380</b>	<b>27,504</b>	<b>124</b>
	1/Other goods and services from Federal sources				
	Services by Other Government Departments	331	3,517	3,517	0

# IT INFRASTRUCTURE MODERNIZATION

## CHANGES IN FY 2024

(Dollars in Thousands)

### Activity Changes

#### Built-In

To Provide For:

Costs of pay adjustments	\$82
Personnel benefits	42
Communications, utilities, and miscellaneous charges	0
Printing and reproduction	0
Advisory and assistance services	0
Other services from non-Federal sources	0
Other goods and services from Federal sources	0
Operation and maintenance of facilities	0
Operation and maintenance of equipment	0
Equipment	0

**Built-Ins Subtotal** **\$124**

**Net Program** **\$0**

**Direct FTE** **0**

	Estimate	FTE
<b>Base</b>	<b>\$27,504</b>	<b>13</b>
<b>Program Increase</b>	<b>\$0</b>	<b>0</b>
<b>Program Decrease</b>	<b>\$0</b>	<b>0</b>