

FY 2023

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, \$47,969,000, which shall be available through September 30, 2024.

Note.— A full-year 2022 appropriation for this account was not enacted at the time the budget was prepared; therefore, the budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of P.L.117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

DOL IT MODERNIZATION

AMOUNTS AVAILABLE FOR OBLIGATION						
(Dollars in Thousands)						
	FY 2021 Revised Enacted		FY 2022 Full Year C.R.		FY 2023 Request	
	FTE	Amount	FTE	Amount	FTE	Amount
A. Appropriation	0	\$27,269	0	\$27,269	15	\$47,969
Unobligated Balance Carried Forward	0	\$2,581	0	\$2,000	0	\$0
<i>Subtotal Appropriation</i>	<i>0</i>	<i>\$29,850</i>	<i>0</i>	<i>\$29,269</i>	<i>15</i>	<i>\$47,969</i>
B. Gross Budget Authority	0	\$29,850	0	\$29,269	0	\$47,969
C. Budget Authority Before the Committee	0	\$29,850	0	\$29,269	0	\$47,969
D. Total Budgetary Resources	0	\$29,850	0	\$29,269	0	\$47,969
Unobligated Balance	0	-\$2,000	0	\$0	0	\$0
E. Total, Estimated Obligations	0	\$27,850	0	\$29,269	0	\$47,969

DOL IT MODERNIZATION

SUMMARY OF CHANGES

(Dollars in Thousands)

	FY 2022 Full Year C.R.	FY 2023 Request	Net Change
Budget Authority			
General Funds	\$27,269	\$47,969	+\$20,700
Total	\$27,269	\$47,969	+\$20,700
Full Time Equivalents			
General Funds	0	15	15
Total	0	15	15

Explanation of Change	FY 2022 Base		FY 2023 Change					
	FTE	Amount	Trust Funds		General Funds		Total	
			FTE	Amount	FTE	Amount	FTE	Amount
Increases:								
A. Built-Ins:								
To Provide For:								
Costs of pay adjustments	0	\$0	0	\$0	0	\$0	0	\$0
Personnel benefits	0	\$0	0	\$0	0	\$0	0	\$0
Communications, utilities, and miscellaneous charges	0	\$130	0	\$0	0	\$0	0	\$0
Printing and reproduction	0	\$0	0	\$0	0	\$0	0	\$0
Advisory and assistance services	0	\$640	0	\$0	0	\$0	0	\$0
Other services from non-Federal sources	0	\$0	0	\$0	0	\$0	0	\$0
Other goods and services from Federal sources	0	\$1,431	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	\$19,858	0	\$0	0	\$0	0	\$0
Equipment	0	\$5,210	0	\$0	0	\$0	0	\$0
Built-Ins Subtotal	0	+\$27,269	0	\$0	0	\$0	0	\$0
B. Programs:								
Cybersecurity Executive Order Implementation	0	\$0	0	\$0	0	\$10,700	0	\$10,700
To provide for IT Modernization	0	\$0	0	\$0	15	\$10,000	15	\$10,000
Programs Subtotal	0	\$0	0	\$0	15	+\$20,700	15	+\$20,700
Total Increase	0	+\$27,269	0	\$0	15	+\$20,700	15	+\$20,700
Decreases:								
A. Built-Ins:								

DOL IT MODERNIZATION

Explanation of Change	FY 2023 Change							
	FY 2022 Base		Trust Funds		General Funds		Total	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
To Provide For:								
Built-Ins Subtotal	0	\$0	0	\$0	0	\$0	0	\$0
B. Programs:								
Total Decrease	0	\$0	0	\$0	0	\$0	0	\$0
Total Change	0	+\$27,269	0	\$0	15	+\$20,700	15	+\$20,700

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SUMMARY BUDGET AUTHORITY AND FTE BY ACTIVITY (Dollars in Thousands)								
	FY 2021 Revised Enacted		FY 2022 Full Year C.R.		FY 2023 Request		Diff. FY23 Request / FY22 Full Year C.R.	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Departmental Support Systems	0	4,889	0	4,889	0	15,589	0	10,700
General Funds	0	4,889	0	4,889	0	15,589	0	10,700
IT Infrastructure Modernization	0	22,380	0	22,380	15	32,380	15	10,000
General Funds	0	22,380	0	22,380	15	32,380	15	10,000
Total	0	27,269	0	27,269	15	47,969	15	20,700
General Funds	0	27,269	0	27,269	15	47,969	15	20,700

NOTE: FY 2021 reflects actual FTE. FY 2022 reflects estimated FTE usage at the annualized level of the CR.

DOL IT MODERNIZATION

BUDGET AUTHORITY BY OBJECT CLASS					
(Dollars in Thousands)					
		FY 2021 Revised Enacted	FY 2022 Full Year C.R.	FY 2023 Request	Diff. FY23 Request / FY22 Full Year C.R.
	Full-Time Equivalent				
	Total	0	0	15	15
11.1	Full-time permanent	0	0	1,800	1,800
11.3	Other than full-time permanent	0	0	27	27
11.9	Total personnel compensation	0	0	1,827	1,827
12.1	Civilian personnel benefits	0	0	612	612
23.3	Communications, utilities, and miscellaneous charges	130	130	130	0
24.0	Printing and reproduction	0	0	0	0
25.1	Advisory and assistance services	640	640	5,640	5,000
25.2	Other services from non-Federal sources	0	0	0	0
25.3	Other goods and services from Federal sources 1/	1,431	1,431	1,431	0
25.4	Operation and maintenance of facilities	0	0	0	0
25.7	Operation and maintenance of equipment	19,858	19,858	33,119	13,261
31.0	Equipment	5,210	5,210	5,210	0
	Total	27,269	27,269	47,969	20,700
	1/Other goods and services from Federal sources				
	Services by Other Government Departments	1,431	1,431	1,431	0

DOL IT MODERNIZATION

APPROPRIATION HISTORY					
(Dollars in Thousands)					
	Budget Estimates to Congress	House Allowance	Senate Allowance	Appropriations	FTE
2013					
Base Appropriation	\$21,852			\$18,778	0
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				0
2023					
Base Appropriation	\$37,269				

¹ 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.

² 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.

ITM resources are critical to perform DOL's and the OCIO's work in support of the IT strategic goals:

- Goal 1: Create the DOL IT Platform – Create an integrated platform that links hardware, applications, and data providing strategic capabilities to achieve DOL-wide operational efficiencies to more effectively serve the wage earners, job seekers, and retirees of the United States.
- Goal 2: Modernize Legacy Agency Applications – Drive the modernization of legacy agency mission critical applications by delivering technology leadership and modern solutions, resulting in a state-of-the-art end-user experience, optimized functionality, and increased security.
- Goal 3: Secure & Enhance the IT Infrastructure – Integrate and standardize DOL's IT infrastructure to provide a robust cybersecurity posture while increasing the reliability and functionality of DOL's information systems and infrastructure that support mission critical services.
- Goal 4: Transform the Customer Experience – As DOL's IT service provider, deliver best in class IT services and solutions to enable DOL agencies to provide superior support to the American public.

The FY 2023 ITM request totals \$47,969,000 and 15 FTE to support these IT strategic goals. The strategic goals work in concert with the Department's Cloud Smart Initiative and is in alignment with an accelerated cloud adoption strategy. Initiatives discussed in the FY 2022 President's Budget will continue 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 will 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

DOL IT MODERNIZATION

previously identified data quality issues in the Continuous Diagnostics and Mitigation (CDM) dashboard.

The FY 2022 and FY 2023 funding levels will support maintenance and enhancement of foundational capabilities established in FY 2020 and FY 2021 to accelerate DOL mission improvement and application modernization. Centers of Excellence (COE) that facilitate cloud migration, case management functionality, data analytics & management, enterprise architecture, and mobile application design and development are in progress through FY 2022. 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 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 initial 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. Over the past year, DOL has been establishing a centralized function to manage the 92,000+ individual communication service connections by transitioning to the new GSA Enterprise Infrastructure Services (EIS) contract resulting in awards of five EIS task orders to date including telecommunications implementation labor. In order to meet the needs of the EIS transition, DOL is utilizing IT Modernization funds to create a database and chargeback system to address the functions GSA will no longer perform under the new EIS contract. The infrastructure build-out, migration, and the telecommunications management system is currently funded under IT Modernization, once operational it will be paid and maintained out of the WCF Telecommunications budget.

DEPARTMENTAL SUPPORT SYSTEMS

BUDGET AUTHORITY BEFORE THE COMMITTEE				
(Dollars in Thousands)				
	FY 2021 Revised Enacted	FY 2022 Full Year C.R.	FY 2023 Request	Diff. FY23 Request / FY22 Full Year C.R.
Activity Appropriation	4,889	4,889	15,589	10,700
FTE	0	0	0	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, Network Consolidation via Unified Communications, Continuous Diagnostics and Mitigation, Cybersecurity Executive Direction, a shift to continuous system security assessments, and enhancements enabling more secure personnel off boarding processes. DOL is continuing to improve the expanded 24/7 security operations.

Notably, these advancements are reflected in DOL’s annually improving Federal Information Security Management Act (FISMA) and Federal Information Technology Acquisition Reform Act (FITARA) scores. This past year, DOL increased OIG FISMA metrics scores for Data Protection & Privacy, Incident Response, Risk Management, and Security Training (including increases for 14 of the 64 FISMA metrics total, with increases for 6 metrics in Incident Response alone); and, was one of only six 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

<u>Fiscal Year</u>	<u>Funding</u> (Dollars in Thousands)	<u>FTE</u>
2018	\$4,889	0
2019	\$4,889	0
2020	\$4,889	0
2021	\$4,889	0
2022	\$0	0

NOTE: A full-year 2022 appropriation for this account was not enacted at the time the budget was prepared.

DEPARTMENTAL SUPPORT SYSTEMS

FY 2023

The FY 2023 request for DSS is \$15,589,000, which includes \$10,700,000 to implement the requirements under Executive Order (EO) 14028, Improving the Nation's Cybersecurity (May 12, 2021). The Department of Labor (DOL) has already made fundamental progress in building towards Zero Trust, specifically having focused on capabilities such as Identity, Device, Data, and Network. Beyond these capabilities zero-trust principles must be integrated in all processes including on-premises to extend security beyond the information technology realm and make it a core principle the Department of Labor operates by. Zero Trust initiatives are as follows:

- **Zero-Trust Initiatives Roadmap - User**
 - **Identity Credential and Access Management**
 - 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.
- **Networking/Environment**
 - **Software Define Networking (SDN)** - Deploy systems on network and environment configurations to utilize infrastructure-as-code, with pervasive automation, following Continuous Integration/ Continuous Deployment (CI/CD) models.
- **Application & Workload**
 - **Micro Segmentation** - Implement Restful Application Program Interface (API) Micro Segments to divide or isolate logical segments on a network at the individual workload or process level.

Other key cybersecurity advancements planned include:

- **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.
- **Cybersecurity Supply Chain Risk Management:** OCIO, in partnership with OSPE, 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 2 (EL2) by February 2023, and then EL3 by August 2023.

DEPARTMENTAL SUPPORT SYSTEMS

FY 2022

The FY 2022 full-year continuing resolution funding level for DSS is \$4,889,000. Funding at this level enables OCIO to maintain necessary enterprise-wide information technology security. FY 2022 initiatives will support OCIO's IT Strategic Goal 3 – Secure and Enhance the IT Infrastructure. Initiatives will include:

- *Identity Credentialing and Access Management (ICAM)*: The ICAM program ensures authorized DOL users have the appropriate access to technology resources at the right 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. In FY 2022, DOL will implement the user access certification features of the Identity Management system that will provide functionality to enable, review, and certify access to applications across the Department. Other activities include 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*: 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) CDM program. In FY 2022, DOL will continue improving the effectiveness, accuracy, and coverage of these tools through deployment efforts to all corners of the DOL IT enterprise, awareness and training of applicable staff, increased oversight and automated alerting of tool coverage issues, data quality improvement for improved accuracy, and more informative alerting and reporting outputs.
- *Cybersecurity Functions*: To enhance the cybersecurity identity capabilities, DOL is working 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. DOL will also continue 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.

DEPARTMENTAL SUPPORT SYSTEMS

FY 2021

The FY 2021 funding level for DSS was \$4,889,000. Funding at this level enabled OCIO to maintain necessary enterprise-wide information technology security.

In FY 2021, DOL took significant steps to enhance the effectiveness of its information security program, including for areas prioritized under Cybersecurity Executive Order (EO). The Department developed a roadmap for Zero Trust, enhanced policy and procedure for Secure Supply Chain, and continued implementing enterprise-wide solutions to enhance encryption, multifactor authentication, IT asset management, incident response and monitoring. In particular, the Department continued deployment of additional Department of Homeland Security (DHS) Continuous Diagnostics and Mitigation (CDM) tools for vulnerability management, implementation of new Data Loss Prevention mechanisms, and transition of FISMA systems due for periodic reauthorization into Ongoing Authorization. DOL provided additional risk-based security and privacy awareness trainings, including quarterly phishing exercises, to address increased cybersecurity risks faced by remote users.

DOL continues to collaborate with DHS to take a more automated approach to incident response, and successfully deployed new capabilities as part of the Vulnerability Disclosure Program, enhancing its 24x7 Security Operations Center (SOC) to substantially reduce critical vulnerabilities within the Department.

- *Identity and Access Management (IAM)*: Provide Simplified Sign On (SSO) capabilities across the enterprise, reducing multiple password requirements for DOL's application users. Personally Identifiable Information (PII) and Simplified Sign-On (SSO): Safeguarded 94.8 million records of Personally Identifiable Information. Boosted productivity by expanding Simplified Sign-On access to 12 software applications in FY21 for a total of 65 to date, which reduces IT costs, improves security and simplifies the user experience.
- *National Cybersecurity Awareness Month (NCSAM) 2020*: Organized a month-long cybersecurity awareness campaign Department-wide. This consisted of 8,000 page views on the Department's intranet page for NCSAM-related content (275% increase from 2019), more than 5,300 engagements with staff throughout the month (312% increase from 2019), and 4,200 combined reviews of trainings, presentations and opening/closing ceremonies on DOL's intranet. Additionally, cybersecurity awareness tips and information were shared through OCIO's social media channels.
- *Zero Trust Cybersecurity Architecture*: Identified seven components for a fully Zero Trust architecture framework: Device, Network, Data, Analytics, Micro Segmentation, Penetration Testing, and Workload Protection. Developed a maturity model for the seven components, created 21 proposed initiatives and a roadmap to find solutions to address the gaps in DOL's Zero Trust architecture framework: Micro Segmentation, Penetration Testing, Workload Protection, Security Orchestration and Automated Response (SOAR).
- *Continuous Diagnostics and Mitigation*: In FY 2021, OCIO continues to implement additional capabilities to reduce manual data feeds in alignment with the DHS implementation schedule, which includes data integrity, data loss prevention, cloud, and mobile capability enhancements. Other activities include:

DEPARTMENTAL SUPPORT SYSTEMS

- Implemented DHS' Agency-Wide Adaptive Risk Enumeration (AWARE) scoring methodology and added functional insight into the dashboard. DOL identified data quality issues with the DHS deployment, resulting from DOL's input to DHS. DOL then supported DHS's government-wide assessment across all Federal Agencies identifying similar quality issues that they were then able to fix and resolve across the board.
- Design, test, and implement a new CDM dashboard that utilizes a Cloud-Forward approach, improves user experience, and utilizes agile technologies (ELK). The target for production deployment is early FY 2022.
- *Cybersecurity Ongoing Authorization (OA)*: Expanded the program for OASAM systems by transitioning an additional 10 systems into Ongoing Authorization. The OA process helps ease or eliminate the encumbrance of a full re-authorization effort, supporting the overarching goal to shift from point-in-time assessments to risk-based decisions.
 - *Enterprise Cisco Identity Service Engine (ISE)*: Completed the ISE Posturing Pilot in September 2021 to improve the Department's cybersecurity posture and comply with National Institute of Standards and Technology (NIST)/FISMA/Center for Internet Security (CIS) regulations, by helping block external devices (printers, wireless access points) from connecting to the Department's network.

DEPARTMENTAL SUPPORT SYSTEMS

WORKLOAD AND PERFORMANCE SUMMARY					
		FY 2021 Revised Enacted		FY 2022 Full Year C.R.	FY 2023 Request
		Target	Result	Target	Target
Departmental Support Systems					
Strategic Goal 5 - A Department Grounded in Innovation, Evidence, and Employee Engagement					
Strategic Objective OASAM M.1 - Drive innovation in administrative, management, and financial services.					
OCIO-46S	Percent of Open Plan of Action and Milestones (POA&Ms), assigned to OCIO-managed Information Systems, with a past-due Planned Finish Date	5%	0%	5%	5%
OASAM- WCF-OCIO- 51	Number of DOL applications with simplified sign-on capability	--	--	95	115

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

DEPARTMENTAL SUPPORT SYSTEMS

Workload and Performance

DOL continues to focus on reducing the impact of cybersecurity risks by safeguarding IT systems, sensitive data, and networks. In FY 2021, DOL in particular 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. Finally, DOL provided additional security awareness trainings, including quarterly phishing exercises, to address increased cybersecurity risks faced by remote users. These measures allowed DOL to seamlessly shift 95% of staff to telework, with uninterrupted delivery, while keeping cybersecurity a top priority. DOL also designed tested and implemented a new CDM dashboard that utilizes a Cloud-Forward approach, improves user experience, and utilizes agile technologies (ELK). The production deployment is targeted for early FY 2022. 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, POA&Ms, and trends for resources. This has proven to be effective in helping DOL keep the number of Plans of Actions and Milestones (POA&MS) with a past due Planned Finish Date to 0, exceeding the initial target of less they 5%.

In addition, the Department will target 95 DOL applications with simplified sign-on capability in FY 2022 and 115 in FY 2023 to further improve DOL's cybersecurity posture.

Notably, these advancements are reflected in DOL's annually improving FISMA and FITARA scores. This past year, DOL increased OIG FISMA metrics scores for Data Protection & Privacy, Incident Response, Risk Management, and Security Training (including increases for 14 of the 64 FISMA metrics total, with increases for 6 metrics in Incident Response alone); and was one of only six agencies to score a B or higher in the FITARA Cybersecurity category.

DEPARTMENTAL SUPPORT SYSTEMS

BUDGET ACTIVITY BY OBJECT CLASS					
(Dollars in Thousands)					
		FY 2021 Revised Enacted	FY 2022 Full Year C.R.	FY 2023 Request	Diff. FY23 Request / FY22 Full Year C.R.
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	130	130	0
24.0	Printing and reproduction	0	0	0	0
25.1	Advisory and assistance services	500	500	3,500	3,000
25.2	Other services from non-Federal sources	0	0	0	0
25.3	Other goods and services from Federal sources 1/	1,100	1,100	1,100	0
25.4	Operation and maintenance of facilities	0	0	0	0
25.7	Operation and maintenance of equipment	3,159	3,159	10,859	7,700
31.0	Equipment	0	0	0	0
	Total	4,889	4,889	15,589	10,700
	1/Other goods and services from Federal sources				
	Services by Other Government Departments	1,100	1,100	1,100	0

DEPARTMENTAL SUPPORT SYSTEMS

CHANGES IN FY 2023

(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 **\$10,700**

Direct FTE **0**

	Estimate	FTE
Base	\$4,889	0
Program Increase	\$10,700	0
Program Decrease	\$0	0

IT INFRASTRUCTURE MODERNIZATION

BUDGET AUTHORITY BEFORE THE COMMITTEE				
(Dollars in Thousands)				
	FY 2021 Revised Enacted	FY 2022 Full Year C.R.	FY 2023 Request	Diff. FY23 Request / FY22 Full Year C.R.
Activity Appropriation	22,380	22,380	32,380	10,000
FTE	0	0	15	15

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. These proactive efforts also enabled DOL to seamlessly shift 95 percent of non-essential DOL staff to full-time teleworking in 2020 due to the COVID-19 pandemic, with uninterrupted delivery of mission-critical services and maintain cybersecurity as a top priority. 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

<u>Fiscal Year</u>	<u>Funding</u> (Dollars in Thousands)	<u>FTE</u>
2018	\$15,880	0
2019	\$18,380	0
2020	\$20,380	0
2021	\$22,380	0
2022	\$0	0

NOTE: A full-year 2022 appropriation for this account was not enacted at the time the budget was prepared.

FY 2023

The FY 2023 request for ITIM is \$32,380,000, for an increase of \$10,000,000 and 15 FTE above the FY 2021 revised enacted funding. 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

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service provisioning capabilities and service consolidation to centralized provisioning platforms. As the shared service consolidations have completed, the focus is now on ways to improve efficiency across the new enterprise. The endeavor will entail 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.

Without the requested resources in FY 2023, 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 proliferation of point solutions, and increase the overall complexity 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. However, additional resources are still required to provide the necessary modernization investment level.

DOL will realize IT modernization return on investment (ROI) in several aspects. 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.

The additional program funding will enable DOL to implement its IT modernization agenda and overall IT strategic plan, which will include the following initiatives, in line with DOL IT goals and objectives:

- Goal 1 - Create the DOL IT Platform:
 - Continue developing the DOL IT platform by implementing capabilities that allows OCIO to implement multiple agency use cases on the same platform. Associated benefits include improved data access and interoperability across bureau data, simplified data access for ad hoc report creation, improved evidence-based decision-making, improved search, and increased advanced analytics capabilities.

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- Continue to invest in platform solutions for building foundational capabilities to further enhance the business process management capabilities that accelerate the development cycle and functional benefits for case management systems migrating to the platform. Integrating the functionality of IT Service Management with Software Asset management, Demand, Project, and application change management through the build out of functional workflows and access directories will drive customer facing foundational efficiencies enabling a self-service capability to the DOL customers to more effectively perform laborious tasks such as: tracking inventories, asset ownership, and software statuses.
- Digitize DOL's document-based resources and increase accessibility by integrating with the data analytics IT cloud platform capability, with the ultimate potential cost avoidance of \$11.6 million per year due to increased efficiency in finding electronic records versus physical records. Execute DOL's approach and implementation of NARA-compliant records management processes.
- Enhance access and improve compliance of its records information management by establishing an electronic environment that provides enterprise records information lifecycle monitoring tools, intelligent identification and classification of its records & controlled unclassified information. DOL plans to improve access to information and services offered by the Department by establishing a Mobile App Development CoE focused on creating standards and developing first class apps for use by a public ever more reliant on mobile devices as well as a DOL workforce that is increasingly untethered to a desk. Since minority populations in the US are more likely to access the Internet via smartphones versus computers or home broadband (source: Pew Research), tailoring the delivery of the Department's services to mobile contexts will help DOL meet the administration's goal of advancing equity.
- The DOL Content Service Platform of integrated systems will produce, organize, track, and store electronic documents and content. It provides a set of services that share common repositories, facilitating organization of diverse content that will integrate with Enterprise Records Management (ERM). The ability to leverage these capabilities across the Department transfers into greater efficiencies by expediting data retrieval, minimizing the need to purchase additional hardware and therefore better supporting the remote workforce initiative.
- 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 2022 through FY 2023, the priority is to fill the data management gaps determined by this gap analysis while continuing to build-out of the Data Analytics Capability across the Department.
- In support of IT modernization goals, the Department established DOL Cloud Services, a cross-agency cloud solution consistent with the Federal Cloud Computing Strategy. The solution gives DOL agencies access to Cloud Service

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Providers (CSPs) with the ability to leverage a central Authority to Operate (ATO) between DOL data centers, CSPs, and DOL agencies. In FY 2023, DOL plans to continue its FY 2022 progress on migrating 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.

- Goal 2- Modernize Legacy Agency Applications:
 - DOL plans to continue migrating 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.
 - Continue the adoption of DOL IT platform capabilities, cloud hosting, and mobile platform as opportunity to modernize agency legacy applications.
 - Transform selected systems utilizing the business process management capability on the DOL IT platform while integrating with the data analytics capability.
 - Continue on-going modernization and enhancement of the General Support and General Infrastructure assets.

- Goal 3- Secure and Enhance the IT Infrastructure:
 - Leverage Enterprise Infrastructure Solution (EIS) to modernize remote office networks with more secure network capabilities.
 - Continue DOL website modernization to standardize front-end technology and simplify access to DOL services making them more user-friendly and easier to maintain.
 - As part of the pandemic response, an accelerated proof of concept has been initiated to address the need for visual information for employees coming back to the Francis Perkins Building (FPB). The ingestion of and distribution of visual content for the digital signage is currently a manual process done by engineering, and engineering will continue to streamline and automate that process. Future expansion could include also displaying live cable feeds through these devices, and distribution of displays and information to DOL Sites outside of FPB that will be centrally controlled from DOL. The Digital Signage Pilot is designed 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.
 - Continue to move to implement infrastructure changes to meet the executive order for 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.

- Goal 4 - Transform the Customer Experience:
 - Increase customer engagement and satisfaction by implementing a single portal for IT and non-IT services that centralize resource access and provide a single engagement point for customer service assistance and issue resolution.

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- Mature project management capabilities by migrating all bureau-led projects to standardized DOL-wide project management framework to drive consistent project delivery and performance levels. Provide training to advance project management practices in support of DOL's IT modernization: agile methodologies, human-centered design, business process reengineering, etc.
- Leverage 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 thin client, zero client, Bring Your Own Device (BYOD), or Chromebook. 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.
- Setup mobile applications COE 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.
- DOL will continue to expand the Innovation Incubator for the exploration of emerging technologies. This includes initial evaluation of new technologies for capabilities to solve individual business challenges as well as exploration of how these technologies can benefit the whole. This includes scaling of the Robotics Process Automation capability and Artificial Intelligence to include Responsible Implementation and Artificial Intelligence Operations.
- The COVID-19 pandemic propelled the adaptability of virtual and telework functionality across the Department. As remote work outlines the future landscape of the federal workforce, DOL is working to develop a reservation system that can be leveraged to book onsite conference rooms or shared hotel space for individuals that chose to or must return to the building going forward while allowing for COVID safety precautions and regulations.

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.

FY 2022

The FY 2022 revised enacted funding level for ITIM is \$22,380,000. High priority activities in FY 2022 include the following:

- DOL plans to continue migrating 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.
- DOL will continue to deploy 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 identified an integration solution with Microsoft Teams and the standard DOL video conferencing

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system as part of OCIO's commitment for "return to work." The full implementation at DOL was completed in 2nd quarter FY 2022.

- 5G Wireless: DOL is planning to pilot two types of deployments where the technology is available: (1) backup telecommunications connectivity to DOL sites to mitigate outages caused by fiber optic cable cuts and other carrier equipment failures; and (2) improved connectivity for mobile workers, such as inspectors, investigators, and data collection personnel.
- Continue to fill the data management gaps determined by the FY21 gap analysis while continuing to build-out of the Data Analytics Capability across the Department.

FY 2021

The FY 2021 revised enacted funding level for ITIM is \$22,380,000. High priority activities in FY 2021 included the following:

- DOL finalized the creation of its enterprise cloud environment and initiated development of a formal target architecture. To date, 37 applications have been established in the DOL OCIO-managed Cloud including ETA WIPS, MSHA.gov, CMP OFLC – FLAG, CTS, VETS-VIPER and OWCP ECOMP, and over 60+ applications in total.
- Unified Communications Program: Improved productivity for 270 Department of Labor offices fulfilling mission work regardless of their work environment by expanding access for 16,806 staff to use reliable collaboration tools such as laptop softphones and electronic faxing; and by replacing end-of-life technology systems and reducing costs.
- DOL identified high priority projects with complex data requirements. The Data Management team completed the discovery phase of related capabilities within the Data Analytics Capability System (DAC) and Labor's Advanced Service for Analytics and Research System (LASAR) analytic systems, resulting in a gap analysis that was presented to the Chief Data Officer and Chief Technology Officer for validation and strategic planning purposes.
- In support of the Shared Service Platform and Modernization of Legacy Systems, DOL is leveraging the Case Management platform to eliminate redundancies in infrastructure, network and system administration, cybersecurity, authority to operate, governance, and Section 508 compliance. DOL is also utilizing data analytics capabilities to drive better executive decision making while driving modernization and compliance around OMB's Memorandum M-19-21 to digitize all of NARA's paper records by FY22,
- DOL continues its effort to Secure and Enhance Infrastructure by recently demonstrating a \$119 million in cost savings and avoidance for the Department by consolidating 7 data centers (bringing the total closed by the end of FY 2021 to 80), consolidating hardware and software contracts, installing wireless networks in 115 DOL offices, and centralizing DOL staff's workstations under an enterprise lease program. As part of the pandemic response strategy DOL focused on maximizing efficiencies by investing in strengthening and optimizing their Infrastructure Solutions, Unified Communication Tools, and Cybersecurity initiatives aimed to

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strengthen safeguards to protect the Department's systems and manage identified security risks.

- Matured IT Shared Service model by setting policy, governance, resources, acquisitions and tools in place to leverage innovation while standardizing repeatable process to streamline IT development and deliver best in class IT services and solution to enable DOL agencies to provide superior support to the American public. DOL maintained five FITARA "A" grades across six total categories, ranking DOL among the top one-third of federal agencies and departments assessed on the implementation of IT modernization and cybersecurity FITARA directives.
- Robotic Process Automation (RPA) capability: Launched an Emerging Technologies Branch and an enterprise-wide RPA capability for automating repetitive, administrative based tasks. Piloted three RPA bots to automate heavily used processes related to purchasing, acquisitions, and market research. Between October 2020 and September 2021, saved 9,220 work hours for the procurement office. Deployed a new bot for the Office of Human Resources, which automates data cleansing for performance review processes and has saved 670+ hours during the past year. Improved DOL's maturity level in the Federal RPA Community of Practice's RPA Maturity Model by progressing from a level 1 to a level 5 in infrastructure-related categories and rising to level 4/5 on categories involving the number of bots in DOL's RPA ecosystem.

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BUDGET ACTIVITY BY OBJECT CLASS					
(Dollars in Thousands)					
		FY 2021 Revised Enacted	FY 2022 Full Year C.R.	FY 2023 Request	Diff. FY23 Request / FY22 Full Year C.R.
11.1	Full-time permanent	0	0	1,800	1,800
11.3	Other than full-time permanent	0	0	27	27
11.9	Total personnel compensation	0	0	1,827	1,827
12.1	Civilian personnel benefits	0	0	612	612
23.3	Communications, utilities, and miscellaneous charges	0	0	0	0
24.0	Printing and reproduction	0	0	0	0
25.1	Advisory and assistance services	140	140	2,140	2,000
25.2	Other services from non-Federal sources	0	0	0	0
25.3	Other goods and services from Federal sources 1/	331	331	331	0
25.4	Operation and maintenance of facilities	0	0	0	0
25.7	Operation and maintenance of equipment	16,699	16,699	22,260	5,561
31.0	Equipment	5,210	5,210	5,210	0
	Total	22,380	22,380	32,380	10,000
	1/Other goods and services from Federal sources				
	Services by Other Government Departments	331	331	331	0

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CHANGES IN FY 2023

(Dollars in Thousands)

Activity Changes

Built-In

To Provide For:

Costs of pay adjustments	\$0
Personnel benefits	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 **\$10,000**

Direct FTE **15**

	Estimate	FTE
Base	\$22,380	0
Program Increase	\$10,000	15
Program Decrease	\$0	0