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December 12, 2023

Congressional Committees

Information Technology: Federal Agencies Are Making Progress in Implementing GAO Recommendations

Each year, the federal government spends more than \$100 billion on IT investments. However, because of longstanding challenges, the federal government's management of IT acquisitions and operations has been on our high-risk list as a government-wide challenge since 2015. In our April 2023 high-risk series update, we identified numerous prior GAO recommendations related to the management of IT acquisitions and operations that federal agencies had not implemented. These included recommendations aimed at (1) improving agencies' implementation of IT management roles and responsibilities established by provisions commonly known as the Federal Information Technology Acquisition Reform Act (FITARA) and (2) reducing duplicative IT.²

To provide federal agencies, the public, and other stakeholders the ability to view details of federal IT investments and track their progress over time, the Office of Management and Budget (OMB) launched the IT Dashboard website in 2009. The federal government also established OMB's U.S. Digital Service (USDS) and the General Services Administration's (GSA) 18F programs in 2014 to help address agencies' troubled IT efforts. Both programs have similar missions of improving public-facing federal digital services, such as online forms and benefits applications on federal agencies' websites and mobile applications.³

The Modernizing Government Technology Act of 2017 included a provision for us to assess the number of IT procurement, development, and modernization programs, offices, and entities in the federal government, including USDS and 18F.⁴ The provision also called for us to assess the extent to which those entities duplicate work⁵ and to report on our work every 2 years.⁶

Our specific objectives for this review were to (1) describe the procurement, development, and modernization investments identified on the IT Dashboard; (2) describe the implementation

¹GAO, High-Risk Series: Efforts Made to Achieve Progress Need to Be Maintained and Expanded to Fully Address All Areas, GAO-23-106203 (Washington, D.C.: Apr. 20, 2023).

²Carl Levin and Howard P. 'Buck' McKeon National Defense Authorization Act for Fiscal Year 2015, Pub. L. No. 113-291, div. A, title VIII, subtitle D, 128 Stat. 3292, 3438-3450 (Dec. 19, 2014).

³OMB defines digital services as the delivery of digital information (data or content) and transactional services (e.g., online forms and benefits applications) across a variety of platforms, devices, and delivery mechanisms (e.g., websites, mobile applications, and social media).

⁴Modernizing Government Technology (MGT) Act provisions of the National Defense Authorization Act for Fiscal Year 2018, Pub. L. No. 115-91, div. A, title X, subtitle G, 131 Stat. 1283, 1568 (Dec. 12, 2017). The provision for GAO's assessment is at sec. 1078(b)(7)(B)(iv), 131 Stat. 1591, 1592 and is codified at 41 U.S.C. 11301 note.

⁵41 U.S.C. 11301 note.

⁶For the first review, see GAO, *Information Technology: Digital Service Programs Need to Consistently Coordinate on Developing Guidance for Agencies*, GAO-22-104492 (Washington, D.C.: Dec. 10, 2021).

status of our prior relevant recommendations on IT duplication and management roles and responsibilities; and (3) describe the implementation status of our prior recommendations on USDS and 18F coordination on IT guidance to avoid duplication.

To address the first objective, we analyzed the investments reported by all 26 agencies on the IT Dashboard for fiscal year 2024, downloaded in October 2023. We summarized the 6,708 IT investments that agencies reported by IT portfolio categories and investment types, according to OMB's guidance for IT budget reporting. We also summarized the planned spending for fiscal year 2024 reported on the dashboard across all investments and agencies by (1) development, modernization, and enhancement of new systems or capabilities; and (2) operations and maintenance of existing systems or capabilities.

To address the second objective, we analyzed the 392 relevant recommendations we made to OMB and federal agencies that were identified in our prior report.⁸ We also reviewed GAO reports issued since our prior review and did not identify any additional relevant recommendations. We determined the implementation status of all relevant recommendations. We then summarized the total number of recommendations that had not yet been implemented, as of October 2023, to address issues related to duplicative IT and IT management roles and responsibilities by topic areas.

To address the third objective, we determined the implementation status of our recommendations we made in our prior report⁹ regarding the extent to which USDS and 18F programs coordinate IT services to avoid duplication.¹⁰ We then identified the actions OMB and GSA took to implement the recommendations.

We conducted this performance audit from March 2023 to December 2023 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

OMB launched the IT Dashboard in 2009 to provide federal agencies, the public, and other stakeholders the ability to view details of federal IT investments and hold agencies accountable for mission-related outcomes.¹¹ OMB requires agencies to report their IT budget data to OMB, which releases certain IT budget data publicly on the dashboard. OMB's IT budget guidance

⁷The 26 federal agencies are the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Homeland Security, Housing and Urban Development, Justice, the Interior, Labor, State, Transportation, the Treasury, and Veterans Affairs; the Environmental Protection Agency; the General Services Administration; the National Aeronautics and Space Administration; National Archives and Records Administration; National Science Foundation; Nuclear Regulatory Commission; Office of Personnel Management; Small Business Administration; Social Security Administration; U.S. Agency for International Development; and the U.S. Army Corps of Engineers.

⁸GAO-22-104492.

⁹GAO-22-104492.

¹⁰Duplication occurs when two or more agencies or programs are engaged in the same activities or provide the same services to the same beneficiaries; for more information, see GAO, *Fragmentation, Overlap, and Duplication: An Evaluation and Management Guide*, GAO-15-49SP (Washington, D.C.: Apr. 14, 2015).

¹¹The IT Dashboard is a public, federal government website previously operated by OMB and currently operated by GSA at https://itdashboard.gov.

establishes agency reporting requirements for the IT Dashboard, including various ways to categorize the types of IT investments.¹²

In our prior report addressing the act's provision, we discussed numerous reports we had issued on federal agencies' efforts to develop and acquire IT.¹³ Specifically, we highlighted 16 reports that made a total of 392 recommendations to 33 agencies to help address duplicative IT, and to clarify and strengthen IT management roles and responsibilities. Of the 392 recommendations, we had made 275 recommendations related to duplicative IT, such as strengthening the processes agencies were using to identify complete software application inventories, reducing IT contract duplication, and consolidating data centers, among other things. The remaining 117 recommendations were to address issues related to agencies' IT management roles and responsibilities.

We reported that agencies had made progress by fully implementing 290 of the 392 recommendations. Of the 102 recommendations that had not been implemented, 37 were related to duplicative IT, and 65 addressed management roles and responsibilities. We discuss the current implementation status of the 102 recommendations later in this report.

¹²OMB, Circular No. A-11: *Preparation, Submission, and Execution of the Budget, Section 55—Information Technology Investments* (Washington, D.C.: Aug. 11, 2023).

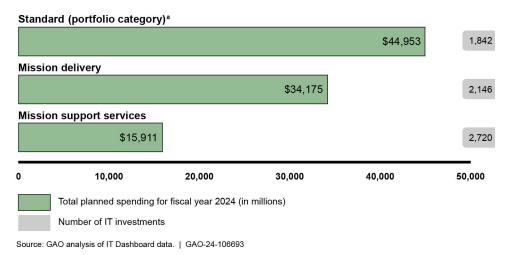
¹³GAO-22-104492.

The IT Dashboard Identified Approximately \$95 Billion for About 6,700 Federal IT Investments of Various Types for Fiscal Year 2024

According to IT Dashboard data, the 26 agencies plan to spend approximately \$95 billion on 6,708 IT investments in fiscal year 2024. The \$95 billion does not include about \$37 billion of the Department of Defense's planned spending for unclassified national security systems, classified IT, or classified cyberspace. The IT investments on the dashboard were categorized by agencies in a variety of ways, such as by IT portfolio categories, investment types, and lifecycle costs—development, modernization, and enhancement (DME) and operations and maintenance (O&M).¹⁴

For example, according to agency-reported IT portfolio categories, agencies plan to spend about \$45 billion (47 percent) on standard IT investments for fiscal year 2024—which are defined by OMB as investments for technology goods and services common to all agencies such as IT infrastructure, security, and management. Additionally, agencies plan to spend about \$34 billion (36 percent) on mission delivery, which according to OMB directly supports the delivery of an agency's mission; and about \$16 billion (17 percent) on mission support services, which OMB defines as support activities common across all agencies such as financial management, human resources, contracting, travel, and grants management. Figure 1 shows the planned spending and number of IT investments by portfolio category for fiscal year 2024.

Figure 1: Planned Spending and Number of IT Investments by Portfolio Category, as Reported on the IT Dashboard for Fiscal Year 2024



¹⁴According to OMB's IT budget guidance, for each investment, agencies first select one of three portfolio categories (i.e., standard, mission delivery, and mission support services) and then select one of five investment types (i.e., standard, major, non-major, funding transfer, and IT migration). All standard IT investment types are to align to the standard IT portfolio category.

Accessible Data for Figure 1: Planned Spending and Number of IT Investments by Portfolio Category, as Reported on the IT Dashboard for Fiscal Year 2024

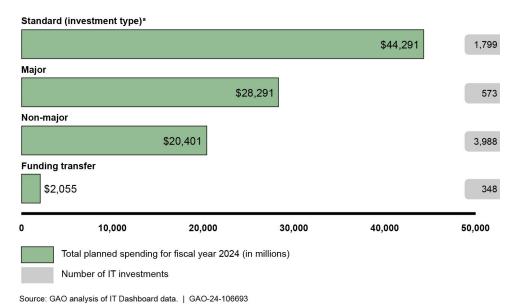
Category	Total planned spending for fiscal year 2024 (in millions)
IT Standard IT Investments	44953
IT Investments for Mission Delivery	34175
IT Investments for Mission Support Services	15911

Source: GAO analysius of IT Dashboard data. | GAO-24-106693

^aThe standard IT portfolio category includes investments for technology goods and services common to all agencies such as IT infrastructure, security, and management.

Regarding investment types, according to the dashboard data, agencies reported the largest planned spending on standard IT investments (about \$44 billion or 47 percent), which are defined by OMB as investments for IT goods and services that are common to all agencies and not mission specific. Agencies reported the second highest planned spending on major investments (about \$28 billion or 30 percent), which are investments that require special management attention because of, among other things, their importance to the mission or function of the government or high development, operating, or maintenance costs. Lastly, agencies reported the third highest planned spending on non-major investments (about \$20 billion or 21 percent), which are investments that do not fit into one of the other types. Figure 2 shows the planned spending by investment type and number of investments for fiscal year 2024.

Figure 2: Planned Spending and Number of IT Investments by Investment Type, as Reported on the IT Dashboard for Fiscal Year 2024



Accessible Data for Figure 2: Planned Spending and Number of IT Investments by Investment Type, as Reported on the IT Dashboard for Fiscal Year 2024

Category	Total planned spending for fiscal year 2024 (in millions)
IT Standard IT Investments	44291
IT Investments for Mission Delivery	28291
IT Investments for Mission Support Services	20401
Funding transfer	2055

Source: GAO analysis of IT Dashboard data. | GAO-24-106693

Note: There is a fifth investment type that agencies can report—IT migration. The IT Dashboard data did not have any IT migration investments.

¹⁵Other reasons that major IT investments could require special management attention include having significant program or policy implications, high executive visibility, unusual funding mechanism, or because they are otherwise defined as major by the agency.

^a Standard IT investment types may be classified into one of the following categories: IT security and compliance, IT management, network, data center and cloud, end user, output, application, delivery, and platform.

The total number of IT investments reported by individual agencies ranged from 11 to 2,544 investments. Figure 3 shows the total number of IT investments reported by each of the 26 agencies for fiscal year 2024.

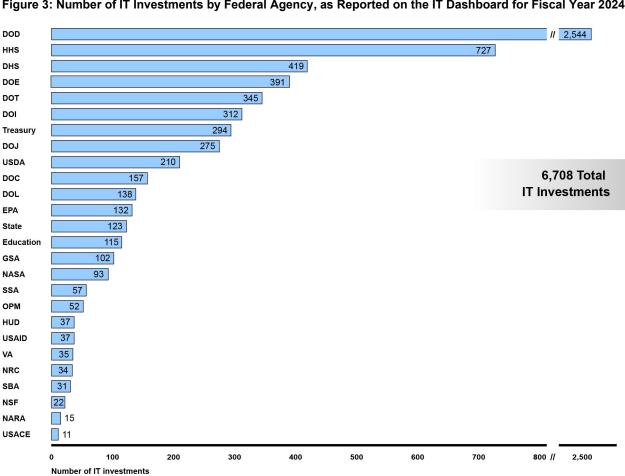


Figure 3: Number of IT Investments by Federal Agency, as Reported on the IT Dashboard for Fiscal Year 2024

DOD = Department of Defense, HHS = Department of Health and Human Services, DHS = Department of Homeland Security, DOE = Department of Energy, DOT = Department of Transportation, DOI = Department of the Interior, Treasury = Department of the Treasury, DOJ = Department of Justice, USDA = Department of Agriculture, DOC = Department of Commerce, DOL = Department of Labor, EPÁ = Environmental Protection Agency, State = Department of State, Education = Department of Education, GSA = General Services Administration, NASA = National Aeronautics and Space Administration, SSA = Social Security Administration, OPM = Office of Personnel Management, HUD = Department of Housing and Urban Development, USAID = U.S. Agency for International Development, VA = Department of Veterans Affairs, NRC = Nuclear Regulatory Commission, SBA = Small Business Administration, NSF = National Science Foundation, NARA = National Archives and Records Administration, USACE = U.S. Army Corps of Engineers

Source: GAO analysis of IT Dashboard data. | GAO-24-106693

Accessible Data for Figure 3: Number of IT Investments by Federal Agency, as Reported on the IT Dashboard for Fiscal Year 2024

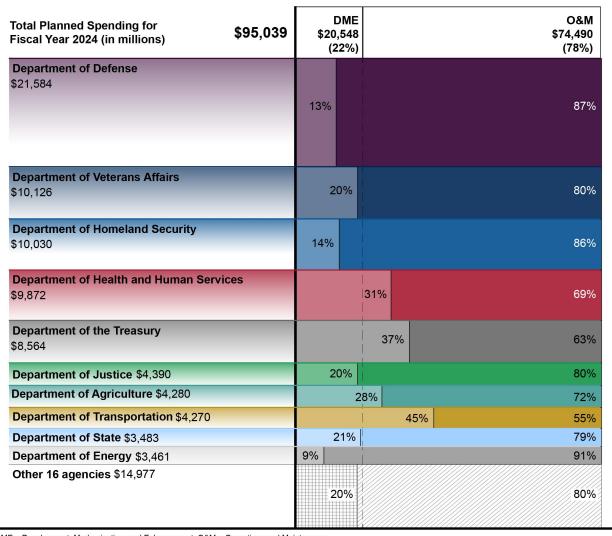
Agency	Number of IT Investments
DOD	2544
HHS	727
DHS	419
DOE	391
DOT	345
DOI	312
Treasury	294
DOJ	275
USDA	210
DOC	157
DOL	138
EPA	132
State	123
Education	115
GSA	102
NASA	93
SSA	57
ОРМ	52
HUD	37
USAID	37
VA	35
NRC	34
SBA	31
NSF	22
NARA	15
USACE	11

Source: GAO analysis of IT Dashboard data. | GAO-24-106693

Finally, of the approximately \$95 billion planned IT spending for fiscal year 2024, the total amount of spending for individual agencies ranged from approximately \$155 million (National Archives and Records Administration) through \$21.6 billion (Department of Defense). Agencies also identified how much they plan to spend on O&M of existing systems or capabilities and DME of new systems or capabilities. In total, agencies reported approximately \$74 billion (78 percent) on O&M and \$21 billion (22 percent) on DME. Figure 4 shows the total planned IT spending by agency, ordered from largest to smallest amounts, as well as their DME and O&M breakdowns, for fiscal year 2024 (we aggregated the 16 agencies with the smallest IT spending).

¹⁶According to the IT Dashboard and DOD's *Information Technology and Cyberspace Activities Budget Overview, President's Budget 2024 Budget Request* (May 2023), 26 federal agencies, including DOD, plan to spend about \$132 billion on IT, for fiscal year 2024. However, the publicly available dashboard data does not include approximately \$37 billion of DOD's planned spending for unclassified national security systems (\$22 billion), classified IT (\$2 billion), or classified cyberspace (\$13 billion).

Figure 4: Planned IT Spending, as Reported on the IT Dashboard for Fiscal Year 2024, in Millions of Dollars



DME = Development, Modernization, and Enhancement, O&M = Operations and Maintenance

Source: GAO analysis of IT Dashboard data. | GAO-24-106693

Accessible Data for Figure 4: Planned IT Spending, as Reported on the IT Dashboard for Fiscal Year 2024, in Millions of Dollars

Agency	Total Planned Spending for Fiscal year 2024 (in millions)
Other 16 agencies	14977
Department of Energy	3461
Department of State	3483
Department of Transportation	4270
Department of Agriculture	4280
Department of Justice	4390
Department of the Treasury	8564

Agency	Total Planned Spending for Fiscal year 2024 (in millions)
Department of Health and Human Services	9872
Department of Homeland Security	10030
Department of Veterans Affairs	10126
Department of Defense	21584

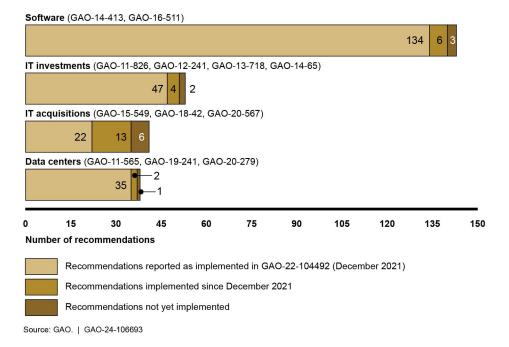
Source: GAO analysis of IT Dashboard data. | GAO-24-106693

Agencies Are Making Progress Implementing Duplication and Management Recommendations

Since our first review in December 2021, agencies have made additional progress on implementing our recommendations to address duplicative IT and IT management roles and responsibilities. Specifically, of the 102 recommendations that had not been implemented in December 2021, 56 have now been implemented (25 related to duplicative IT, and 31 related to IT management roles and responsibilities).¹⁷

For IT duplication, 25 of the 37 recommendations that had not been implemented in December 2021 have now been implemented. Figure 5 summarizes the status of the recommendations on IT duplication by four topic areas (i.e., software, investments, acquisitions, and data centers).

Figure 5: Status of GAO Recommendations Related to IT Duplication, as of October 2023



Accessible Data for Figure 5: Status of GAO Recommendations Related to IT Duplication, as of October 2023

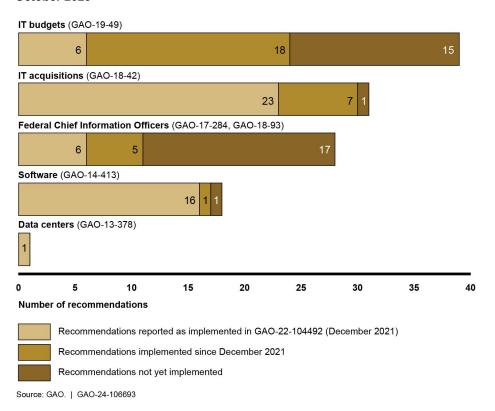
¹⁷See GAO-22-104492 for further details on the recommendations we previously identified.

Category	Recommendations reported as implemented in GAO-22-104492 (December 2021)	Recommendations implemented since December 2021	Recommendations not yet implemented
Software	134	6	3
IT Investments	47	4	2
IT Acquisitions	22	13	6
Data Centers	35	2	1

Note: Since 2011, GAO has issued annual products responding to a statutory provision for it to identify and report on federal programs, agencies, offices, and initiatives—either within departments or government-wide—that have duplicative goals or activities. (See 31 U.S.C. § 712 note.) Figure 5 represents a subset of reports GAO issued on duplication topics that had recommendations relevant to our review. For more complete information on the key issues, progress made, and related products in these duplication areas, see GAO's action tracker at https://www.gao.gov/reports-testimonies/action-tracker.

For IT management roles and responsibilities, 31 of the 65 recommendations that had not been implemented in December 2021 have now been implemented. Figure 6 summarizes the status of the recommendations on IT management roles and responsibilities by five topic areas (i.e., budgets, acquisitions, federal chief information officers, software, and data centers).

Figure 6: Status of GAO Recommendations Related to IT Management Roles and Responsibilities, as of October 2023



Accessible Data for Figure 6: Status of GAO Recommendations Related to IT Management Roles and Responsibilities, as of October 2023

Category	Recommendations reported as implemented in GAO-22-104492 (December 2021)	Recommendations implemented since December 2021	Recommendations not yet implemented
IT Budgets	6	18	15
IT Acquisitions	23	7	1
Federal Chief Information Officers	6	5	17
Software	16	1	1
Data Centers	1	0	0

Source: GAO. | GAO-24-106693

Although agencies made notable progress by implementing 56 of the 102 recommendations that had not been implemented in December 2021, they have yet to fully implement the 46 remaining recommendations. As we have previously reported, implementing these recommendations could better position agencies to oversee and effectively manage their IT

development and acquisition efforts, reduce the risk of wasting federal funds and other resources on duplicative IT investments, and potentially save millions of dollars.

OMB and GSA Improved Coordination on IT Guidance among Their Digital Service Programs

In December 2021, we reported that OMB's USDS and GSA's 18F offices conducted similar activities to fulfill their mission, such as providing expertise to agencies on specific IT projects, recruiting IT experts, and developing guidance to assist agencies in acquiring IT.¹⁸ We found that although OMB's USDS and GSA's 18F programs had consistently coordinated on their IT projects and recruiting efforts, they had not consistently coordinated on the IT acquisition and development guidance they provided to agencies. We noted that, by not coordinating on guidance, USDS and 18F risked overlapping or duplicating their efforts or presenting conflicting information in their guidance. Accordingly, we made two recommendations—one to OMB and one to GSA—to have USDS and 18F work with each other to establish and document an approach to coordinate on IT guidance provided to agencies. OMB and GSA generally concurred with, and subsequently implemented, the recommendations.

As of January 2023, OMB and GSA had documented an approach for coordinating with each other on the IT guidance that was being developed by their USDS and 18F programs. The process included monthly collaboration meetings between OMB and GSA officials to, among other things, share information on proposed USDS and 18F guidance and identify opportunities for addressing potentially duplicative guidance or collaborating jointly on the guidance. OMB and GSA officials held these meetings from December 2021 through December 2022, which included discussions of IT guidance that USDS or 18F was developing, as well as any necessary coordination. OMB and GSA planned to continue discussing IT guidance in future collaboration meetings. By taking these steps, USDS and 18F have reduced the risk of overlap or duplication of efforts, and the potential for presenting conflicting information in their guidance.

We are sending copies of this report to the appropriate congressional committees, the Administrator of the General Services Administration, the Director of the Office of Management and Budget, and other interested parties. In addition, the report is available at no charge on the GAO website at https://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (202) 512-6151 or walshk@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report included Jeanne Sung (Assistant Director), and Paige Teigen (Analyst-in-Charge), Chris Businsky, Becca Eyler, Hiama Halay, Kim LaMore, and Ahsan Nasar.

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¹⁸GAO-22-104492.

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