

441 G St. NW  
Washington, DC 20548

Accessible Version

September 3, 2025

Pavan Pidugu  
Chief Information Officer  
U.S. Department of Transportation  
1200 New Jersey Avenue, SE  
Washington, DC 20590

### **Chief Information Officer Open Recommendations: Department of Transportation**

Dear Mr. Pidugu:

I am writing to you with respect to your role as the Chief Information Officer (CIO) for the Department of Transportation (DOT). As an independent, non-partisan agency that works for Congress, GAO's mission is to support Congress in meeting its constitutional responsibilities and help improve the performance and ensure the accountability of the federal government. Our work includes investigating matters related to the use of public funds and evaluating programs and activities of the U.S. Government at the request of congressional committees and subcommittees, on the initiative of the Comptroller General, and as required by public laws or committee reports. Our duties include reporting our findings and recommending ways to increase economy and efficiency in government spending. The purpose of this letter is to provide an overview of the open GAO recommendations to DOT that call for the attention of the CIO.

We identified recommendations that relate to the CIO's roles and responsibilities in effectively managing IT. They include strategic planning, investment management, and information security. We have previously reported on the significance of the CIO's role in improving the government's performance in IT and related information management functions.<sup>1</sup> Your attention to these recommendations will help ensure the secure and effective use of IT at the department. Currently, DOT has 34 open recommendations that call for the attention of the CIO, including 14 that are sensitive and 14 that are relevant to a component-level CIO.<sup>2</sup> Each of these recommendations relates to a GAO High-Risk area: (1) [Ensuring the Cybersecurity of the Nation](#) or (2) [Improving IT Acquisitions and Management](#).<sup>3</sup> In addition, GAO has designated two

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<sup>1</sup>See for example, GAO, *Federal Chief Information Officers: Critical Actions Needed to Address Shortcomings and Challenges in Implementing Responsibilities*, [GAO-18-93](#) (Washington, D.C.: Aug. 2, 2018).

<sup>2</sup>Thirteen of the sensitive recommendations are relevant to the Federal Aviation Administration's CIO, and one is relevant to the department's CIO.

<sup>3</sup>GAO, *High-Risk Series: Heightened Attention Could Save Billions More and Improve Government Efficiency and Effectiveness*, [GAO-25-107743](#) (Washington, D.C.: Feb. 25, 2025).

of the 34 as priority recommendations.<sup>4</sup> Fully implementing these open recommendations could significantly improve DOT's ability to deter threats and manage its critical systems, operations, and information. I have summarized selected recommendations here. See the enclosure for a full list, and additional details on the GAO recommendations, including the sensitive recommendations.

**Ensuring the Cybersecurity of the Nation.** DOT needs to take action to secure the information systems it uses to carry out its mission. This includes fully developing an organization-wide cybersecurity risk management strategy and risk assessment. Until DOT implements this recommendation, the department may lack a clear organization-wide understanding of acceptable risk levels and appropriate risk response strategies to protect its systems and data.

In addition, we recommended that the department fully implement all event logging requirements as directed by the Office of Management and Budget. Until DOT implements this recommendation, there is increased risk that the department will not have complete information from logs on its systems to detect, investigate, and remediate cyber threats.

**Improving IT Acquisitions and Management.** DOT needs to take steps to effectively acquire and manage IT. For example, we recommended that DOT develop a department-wide comprehensive policy for the management of software licenses, and analyze license data to identify opportunities to reduce costs. Until DOT implements this recommendation, the department cannot determine its most widely used software applications and better inform investment decision making.

DOT also needs to provide direction and oversight of IT acquisitions for cloud services. This includes implementing the Office of Management and Budget's *Federal Cloud Computing Strategy* in order to evaluate safe and secure cloud computing options before making new investments. Until the department implements federal guidance, DOT faces increased risk that cloud services will not be effectively managed.

In addition to GAO's recommendations, the DOT Inspector General also has multiple open recommendations in the areas of cybersecurity and IT acquisitions and management. These include cybersecurity recommendations that relate to the department's requirements under the Federal Information Security Modernization Act of 2014.<sup>5</sup> It will be important to address both GAO and Inspector General recommendations.

Copies of this letter are being sent to the appropriate congressional committees and the Federal CIO. The letter will also be available at no charge on the GAO website at <https://www.gao.gov>. In addition, we sent a separate letter related to department-wide priority recommendations, which conveys the importance of addressing cybersecurity risks, to the Secretary of

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<sup>4</sup>Priority recommendations are those that GAO believes warrant priority attention from heads of key departments or agencies. They are highlighted because, upon implementation, they may significantly improve government operations, for example, by realizing large dollar savings; eliminating mismanagement, fraud, and abuse; or making progress toward addressing a high-risk or duplication issue. Since 2015, GAO has sent letters to selected agencies to highlight the importance of implementing such recommendations.

<sup>5</sup>The Federal Information Security Modernization Act of 2014, Pub. L. No. 113-283, 128 Stat. 3073 (Dec. 18, 2014) largely superseded the Federal Information Security Management Act of 2002, enacted as Title III, E-Government Act of 2002, Pub. L. No. 107-347, 116 Stat. 2899, 2946 (Dec. 17, 2002).

Transportation.<sup>6</sup> We also sent a letter on key issues related to financial management in the federal government to DOT's Acting Chief Financial Officer.<sup>7</sup>

If you have any questions or would like to discuss any of the recommendations outlined in this letter, please do not hesitate to contact me at [marinosn@gao.gov](mailto:marinosn@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this letter. Our teams will continue to coordinate with your staff on addressing these 34 open recommendations that call for the attention of the CIO. I appreciate DOT's continued commitment and thank you for your personal attention to these important recommendations.

Sincerely,

//SIGNED//

Nick Marinos  
Managing Director  
Information Technology and Cybersecurity

Enclosure

cc: Mr. Natesh Manikoth, CIO, Federal Aviation Administration  
Mr. Gregory Barbaccia, Federal CIO, Office of Management and Budget

**Enclosure**

### **Chief Information Officer Open Recommendations to the Department of Transportation**

This enclosure includes the open GAO recommendations to the Department of Transportation (DOT) that call for the attention of its Chief Information Officer (CIO), including the sensitive recommendations.<sup>8</sup> We have divided these recommendations into two categories: (1) ensuring the cybersecurity of the nation and (2) improving IT acquisitions and management.

### **Ensuring the Cybersecurity of the Nation**

Federal agencies depend on IT systems to carry out operations and process, maintain, and report essential information. The security of these systems and data is vital to protecting individual privacy and ensuring national security. Table 1 provides information on the open cybersecurity-related recommendations relevant to the DOT CIO.

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<sup>6</sup>GAO, *Priority Open Recommendations: Department of Transportation*, [GAO-25-108054](#) (Washington, D.C.: June 20, 2025).

<sup>7</sup>GAO, *U.S. Consolidated Financial Statements: Key Issues for the Department of Transportation*, [GAO-25-108152](#) (Washington, D.C.: Aug. 21, 2025).

<sup>8</sup>Due to the sensitive nature of GAO reports with report numbers ending in SU (controlled unclassified information), the recommendation language has been omitted.

**Table 1: Open Chief Information Officer (CIO)-related Cybersecurity Recommendations for the Department of Transportation (DOT)**

GAO report number	GAO report title	Recommendation
GAO-15-204SU	Information Security: Federal Aviation Administration Needs to Address Weaknesses in Air Traffic Control Systems	Recommendation 22
		Recommendation 23
		Recommendation 29
		Recommendation 42
		Recommendation 45
		Recommendation 105
		Recommendation 121
		Recommendation 136
		Recommendation 137
		Recommendation 138
		Recommendation 140
		Recommendation 141
		Recommendation 147
GAO-17-8	IT Workforce: Key Practices Help Ensure Strong Integrated Program Teams; Selected Departments Need to Assess Skill Gaps	To facilitate the analysis of gaps between current skills and future needs, the development of strategies for filling the gaps, and succession planning, the Secretary of Transportation should require the CIO, Chief Human Capital Officer, and other senior managers as appropriate to address the shortfalls in IT workforce planning noted in this report, including the following actions: (1) establish a time frame for when the department is to finalize its draft workforce planning process and maintain that process; (2) develop staffing requirements for all positions; (3) assess competency and staffing needs regularly for all positions; (4) assess gaps in staffing for all components of the workforce; (5) develop strategies and plans to address gaps in competencies and staffing; (6) implement activities that address gaps, including an IT acquisition cadre, cross-functional training of acquisition and program personnel, a career path for program managers, and use of special hiring authorities, if justified and cost-effective; (7) monitor the department's progress in addressing competency and staffing gaps; and (8) report to department leadership on progress in addressing competency and staffing gaps. (Recommendation 4)*
GAO-19-384	Cybersecurity: Agencies Need to Fully Establish Risk Management Programs and Address Challenges	<p>The Secretary of Transportation should fully develop a cybersecurity risk management strategy that includes the key elements identified in this report. (Recommendation 26)*</p> <p>The Secretary of Transportation should update the department's policies to require an organization-wide risk assessment. (Recommendation 27)</p>

GAO report number	GAO report title	Recommendation
<a href="#">GAO-23-106031</a>	Cybersecurity: DOT Defined Roles and Responsibilities, but Additional Oversight Needed	<p>The Secretary of Transportation should direct the DOT CIO to collaborate with human resources officials to develop and implement a policy requiring that Operating Administration senior IT managers' performance plans include cybersecurity-related performance expectations. (Recommendation 2)</p> <p>The Secretary of Transportation should ensure that the DOT CIO participates in the performance reviews of Operating Administration CIO equivalents. (Recommendation 3)</p>
<a href="#">GAO-24-105658</a>	Cybersecurity: Federal Agencies Made Progress, but Need to Fully Implement Incident Response Requirements	The Secretary of Transportation should ensure that the agency fully implements all event logging requirements as directed by Office of Management and Budget guidance. (Recommendation 12)

\*Indicates a priority recommendation.

Source: GAO summary based on previously issued reports. | GAO-25-108463

Note: Due to the sensitive nature of GAO reports with report numbers ending in SU (controlled unclassified information), the recommendation language has been omitted.

## Improving IT Acquisitions and Management

Federal IT investments too frequently fail to deliver capabilities in a timely, cost-effective manner. Key management challenges—such as a lack of disciplined project planning and program oversight—continue to hamper effective acquisition and management of the government's IT assets. Table 2 provides information on the open IT acquisition and management-related recommendations relevant to the DOT CIO.

**Table 2: Open Chief Information Officer (CIO)-related IT Acquisition and Management Recommendations for the Department of Transportation (DOT)**

GAO report number	GAO report title	Recommendation
<a href="#">GAO-14-413</a>	Federal Software Licenses: Better Management Needed to Achieve Significant Savings Government-Wide	To ensure the effective management of software licenses, the Secretary of Transportation should develop an agency-wide comprehensive policy for the management of software licenses that addresses the weaknesses we identified. (Recommendation 69)

GAO report number	GAO report title	Recommendation
<a href="#">GAO-17-464</a>	Telecommunications: Agencies Need to Apply Transition Planning Practices to Reduce Potential Delays and Added Costs	<p>The Secretary of Transportation should ensure that the department's CIO verifies the completeness of DOT's inventory of current telecommunications assets and services and establishes a process for ongoing maintenance of the inventory. (Recommendation 21)</p> <p>The Secretary of Transportation should ensure that the department's CIO identifies the agency's future telecommunications needs, areas for optimization, and costs and benefits of new technology; and completes efforts to align DOT's approach with its long-term plans and enterprise architecture. (Recommendation 22)</p> <p>The Secretary of Transportation should ensure that the department's CIO fully identifies the resources needed for the full transition, justifies requests for transition resources, identifies staff resources needed for the full transition, and fully analyzes training needs for staff assisting with the transition. (Recommendation 24)</p> <p>The Secretary of Transportation should ensure that the department's CIO fully demonstrates that DOT's transition goals and measures align with its mission; completely identifies transition risks related to information security, critical systems, and continuity of operations; and fully identifies mission-critical priorities in the transition timeline. (Recommendation 25)</p>
<a href="#">GAO-19-58</a>	Cloud Computing: Agencies Have Increased Usage and Realized Benefits, but Cost and Savings Data Need to Be Better Tracked	<p>The Secretary of Transportation should ensure that the CIO of Transportation establishes a consistent and repeatable mechanism to track savings and cost avoidances from the migration and deployment of cloud services. (Recommendation 28)</p>

GAO report number	GAO report title	Recommendation
GAO-24-106137	Cloud Computing: Agencies Need to Address Key OMB Procurement Requirements	<p>The Secretary of Transportation should ensure that the CIO of Transportation develops guidance to put a cloud service level agreement (SLA) in place with every vendor when a cloud solution is deployed. The guidance should include language that addresses the Office of Management and Budget's (OMB) four required elements for SLAs, including: continuous awareness of the confidentiality, integrity, and availability of its assets; a detailed description of roles and responsibilities; clear performance metrics; and remediation plans for non-compliance. (Recommendation 21)</p> <p>The Secretary of Transportation should ensure that the CIO of Transportation updates its guidance regarding standardizing cloud SLAs. (Recommendation 22)</p> <p>The Secretary of Transportation should ensure that the CIO of Transportation develops guidance to require that contracts affecting the agency's high value assets that are managed and operated in the cloud include language that provides the agency with continuous visibility of the asset. (Recommendation 23)</p> <p>The Secretary of Transportation should ensure that the CIO of Transportation updates its existing contracts for high value assets that are managed and operated in the cloud to meet OMB's requirement once guidance from the CIO Council is available on language that provides the agency with continuous visibility of the asset. If modifying the existing contract is not practical, the agency should incorporate language into the contract that will meet OMB's requirement upon option exercise or issuance of a new award. (Recommendation 24)</p>
GAO-24-107001	Air Traffic Control: Federal Aviation Administration Actions Are Urgently Needed to Modernize Aging Systems	<p>The Administrator of the Federal Aviation Administration should ensure that the CIO, Chief Financial Officer, and Acquisition Executive annually document approval of the business case for the Federal Aviation Administration Enterprise Network Services, Enterprise Information Display System phase 1, and Next Generation Air Transportation System Weather Processor investments before submission to OMB and the IT Dashboard. (Recommendation 7)</p>
GAO-25-107041	IT Portfolio Management: OMB and Agencies Are Not Fully Addressing Selected Statutory Requirements	<p>The Secretary of Transportation should direct the department CIO to work with OMB to ensure that annual reviews of their IT portfolio are conducted in conjunction with the Federal CIO and the Chief Operating Officer or Deputy Secretary (or equivalent), as prescribed by the Federal Information Technology Acquisition Reform Act. (Recommendation 33)</p>
GAO-25-107114	Cloud Computing: Selected Agencies Need to Implement Updated Guidance for Managing Restrictive Licenses	<p>The Secretary of Transportation should update and implement guidance to fully address identifying, analyzing, and mitigating the impacts of restrictive software licensing practices on cloud computing efforts. (Recommendation 3)</p> <p>The Secretary of Transportation should assign and document responsibility for identifying and managing potential impacts of restrictive software licensing practices across the department. (Recommendation 4)</p>

GAO report number	GAO report title	Recommendation
GAO-25-107289SU	Information Technology: Agencies Need to Plan for Modernizing Critical Decades- Old Legacy Systems	Recommendation 6

Source: GAO summary based on previously issued reports. | GAO-25-108463