

## Audit Report

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# Maryland Department of Transportation Office of Transportation Technology Services

February 2024

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### Public Notice

**In compliance with the requirements of the State Government Article Section 2-1224(i), of the Annotated Code of Maryland, the Office of Legislative Audits has redacted cybersecurity findings and related auditee responses from this public report.**



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MARYLAND GENERAL ASSEMBLY

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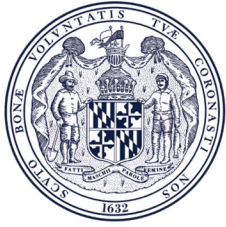
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DEPARTMENT OF LEGISLATIVE SERVICES  
OFFICE OF LEGISLATIVE AUDITS  
MARYLAND GENERAL ASSEMBLY

Victoria L. Gruber  
Executive Director

Gregory A. Hook, CPA  
Legislative Auditor

February 27, 2024

Senator Clarence K. Lam, M.D., Senate Chair, Joint Audit and Evaluation Committee  
Delegate Jared Solomon, House Chair, Joint Audit and Evaluation Committee  
Members of Joint Audit and Evaluation Committee  
Annapolis, Maryland

Ladies and Gentlemen:

We have audited the Maryland Department of Transportation (MDOT) – Office of Transportation Technology Services (OTTS). OTTS provides computing and network resources to MDOT headquarters and its five modals and operates as a computer services provider for these units. Our audit included an internal control review of the OTTS data center and the network administered by OTTS that supports MDOT and its modals.

Systems that operated on OTTS computing platforms at the time of our review included MDOT’s Financial Management Information System, MDOT’s payroll system, and several Motor Vehicle Administration applications.

Our audit disclosed certain cybersecurity-related findings. However, in accordance with the State Government Article, Section 2-1224(i) of the Annotated Code of Maryland, we have redacted the findings from this audit report. Specifically, State law requires the Office of Legislative Audits to redact cybersecurity findings in a manner consistent with auditing best practices before the report is made available to the public. The term “cybersecurity” is defined in the State Finance and Procurement Article, Section 3.5-301(b), and using our professional judgment we have determined that the redacted findings falls under the referenced definition. The specifics of the cybersecurity findings were previously communicated to those parties responsible for acting on our recommendations.

Our audit also included a review to determine the status of the two findings contained in our preceding audit report. However, since these are cybersecurity-related findings, the current status of these findings has been redacted.

MDOT's response to this audit, on behalf of OTTS, is included as an appendix to this report; however, consistent with the requirements of State law, we have redacted all elements of MDOT's response since they are related to the cybersecurity findings. We reviewed the response and noted general agreement to our findings and related recommendations. Subsequent to the response receipt, but prior to the issuance of the final report, we contacted MDOT management and obtained verbal clarification from MDOT that satisfactorily resolved one outstanding issue. Consequently, we have concluded that the written responses and verbal clarification together indicate that MDOT's corrective actions identified are sufficient to address all audit issues.

We wish to acknowledge the cooperation extended to us during the audit by OTTS. We also wish to acknowledge MDOT's and OTTS' willingness to address the audit issues and implement appropriate corrective actions.

Respectfully submitted,

A handwritten signature in black ink that reads "Gregory A. Hook". The signature is written in a cursive style with a large initial "G".

Gregory A. Hook, CPA  
Legislative Auditor

# Table of Contents

<b>Background Information</b>	4
Agency Responsibilities	4
Status of Findings From Preceding Audit Report	4
<b>Findings and Recommendations</b>	5
<b>Information Technology</b>	
Finding 1 – Redacted cybersecurity-related finding	5
Finding 2 – Redacted cybersecurity-related finding	5
Finding 3 – Redacted cybersecurity-related finding	5
Finding 4 – Redacted cybersecurity-related finding	5
<b>Audit Scope, Objectives, and Methodology</b>	6
<b>Agency Response</b>	Appendix

## **Background Information**

### **Agency Responsibilities**

The Maryland Department of Transportation (MDOT) – Office of Transportation Technology Services (OTTS) provides computing and network resources, such as internet access and remote access, to MDOT headquarters and its modals and operates as a computer service bureau for these units.

### **Status of Findings From Preceding Audit Report**

Our audit included a review to determine the current status of the two findings contained in our preceding audit report dated April 1, 2019. However, since these are cybersecurity-related findings, the current status of these findings has been redacted.

# Findings and Recommendations

## Information Technology

We determined that the Information Technology section, including Findings 1 through 4 related to “cybersecurity,” as defined by the State Finance and Procurement Article, Section 3.5-301(b) of the Annotated Code of Maryland, and therefore are subject to redaction from the publicly available audit report in accordance with the State Government Article 2-1224(i). Consequently, the specifics of the following findings, including the analysis, related recommendations, along with MDOT’s responses, have been redacted from this report copy.

**Finding 1**  
**Redacted cybersecurity-related finding.**

**Finding 2**  
**Redacted cybersecurity-related finding.**

**Finding 3**  
**Redacted cybersecurity-related finding.**

**Finding 4**  
**Redacted cybersecurity-related finding.**

## **Audit Scope, Objectives, and Methodology**

We have audited the Maryland Department of Transportation (MDOT) – Office of Transportation Technology Services (OTTS). Fieldwork associated with our audit of OTTS was conducted during the period from September 2021 to August 2022. The audit was conducted 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.

As prescribed by the State Government Article, Section 2-1221 of the Annotated Code of Maryland, the objectives of this audit were to examine OTTS' internal control over the MDOT data center and network and to evaluate its compliance with applicable State laws, rules, and regulations for the computer systems that support MDOT and its five modals. Specifically, given OTTS' widespread responsibility for the MDOT network, our audit included an evaluation of the security control environment for all portions of the MDOT network controlled by OTTS. A description of the specific information systems and related control functions addressed by the audit have been redacted from this report as required by State Government Article Section 2-1224(i) described below.

In planning and conducting our audit, we focused on the major areas of operations based on assessments of significance and risk. As noted, the areas addressed by the audit have been redacted from this report. We also determined the status of the findings contained in our preceding audit report.

Our audit did not include OTTS' fiscal operations which are audited separately as part of our audit of the MDOT – The Secretary's Office. The most recent report on MDOT – The Secretary's Office was issued on November 6, 2023.

To accomplish our audit objectives, our audit procedures included inquiries of appropriate personnel, inspections of documents and records, certain tests to evaluate the effectiveness of controls, and to the extent practicable, observations of OTTS' operations. We also performed other auditing procedures that we considered necessary to achieve our audit objectives. The reliability of data used in this report for background or informational purposes was not assessed.

OTTS' management is responsible for establishing and maintaining effective internal control. Internal control is a process designed to provide reasonable assurance that objectives pertaining to the reliability of financial records;



effectiveness and efficiency of operations, including safeguarding of assets (including information systems resources); and compliance with applicable laws, rules, and regulations are achieved. As provided in *Government Auditing Standards*, there are five components of internal control: control environment, risk assessment, control activities, information and communication, and monitoring. Each of the five components, when significant to the audit objectives, and as applicable to OTTS, were considered by us during the course of this audit.

Because of inherent limitations in internal control, errors or fraud may nevertheless occur and not be detected. Also, projections of any evaluation of internal control to future periods are subject to the risk that conditions may change or compliance with policies and procedures may deteriorate.

Our reports are designed to assist the Maryland General Assembly in exercising its legislative oversight function and to provide constructive recommendations for improving State operations. As a result, our reports generally do not address activities we reviewed that are functioning properly.

This report includes findings relating to conditions that we consider to be significant deficiencies in the design or operation of internal control that could adversely affect OTTS' ability to operate information systems resources effectively and efficiently, and/or comply with applicable laws, rules, and regulations. Our report also includes findings regarding significant instances of noncompliance with applicable laws, rules, or regulations. Other less significant findings were communicated to OTTS that did not warrant inclusion in this report.

State Government Article Section 2-1224(i) requires that we redact in a manner consistent with auditing best practices any cybersecurity findings before a report is made available to the public. This results in the issuance of two different versions of an audit report that contains cybersecurity findings – a redacted version for the public and an unredacted version for government officials responsible for acting on our audit recommendations.

The State Finance and Procurement Article, Section 3.5-301(b), states that cybersecurity is defined as “processes or capabilities wherein systems, communications, and information are protected and defended against damage, unauthorized use or modification, and exploitation.” Based on that definition, and in our professional judgement, we concluded that all findings in this report fall under that definition. Consequently, for the publicly available audit report all specifics as to the nature of cybersecurity findings and required corrective actions

have been redacted. We have determined that such aforementioned practices, and government auditing standards, support the redaction of this information from the public audit report. The specifics of these cybersecurity findings have been communicated to OTTS and those parties responsible for acting on our recommendations in an unredacted audit report.

The response from MDOT, on behalf of OTTS, to our findings and recommendations is included as an appendix to this report. Depending on the version of the audit report, responses to any cybersecurity findings may be redacted in accordance with State law. As prescribed in the State Government Article, Section 2-1224 of the Annotated Code of Maryland, we will advise MDOT regarding the results of our review of its response.



Wes Moore  
Governor  
Aruna Miller  
Lieutenant Governor  
Paul J. Wiedefeld  
Secretary

Office of the Secretary

February 20, 2024

Gregory A. Hook, CPA  
Legislative Auditor  
Office of Legislative Audits  
The Warehouse at Camden Yards  
351 West Camden Street, Suite 400  
Baltimore MD 21201

Dear Mr. Hook:

Enclosed please find responses to the audit report from the Office of Legislative Audits for the Maryland Department of Transportation (MDOT) Office of Transportation Technology Services for the period beginning June 5, 2017, and ending September 26, 2021.

If you have any additional questions or concerns, please contact Ms. Jaclyn D. Hartman, MDOT Assistant Secretary of Transportation Investments at 410-865-1005 or [jhartman1@mdot.state.md.us](mailto:jhartman1@mdot.state.md.us). Of course, you may always contact me directly.

Sincerely,

A handwritten signature in black ink that reads "Paul J. Wiedefeld". The signature is fluid and cursive, with the first name "Paul" being particularly prominent.

Paul J. Wiedefeld  
Secretary

Attachment

cc: Ms. Samantha Biddle, Deputy Secretary, MDOT  
Ms. Jaclyn Hartman, Assistant Secretary of Transportation Investments, MDOT  
Mr. Shafiq Rahman, Chief Information Officer, MDOT  
Ms. Octavia Robinson, Chief Financial Officer, MDOT  
Ms. Dianna Rosborough, Assistant Secretary of Administration, MDOT

# Maryland Department of Transportation Office of Transportation Technology Services

## Agency Response Form

### Information Technology

The Office of Legislative Audits (OLA) has determined that the Information Technology section, including Findings 1 through 4 related to “cybersecurity,” as defined by the State Finance and Procurement Article, Section 3.5-301(b) of the Annotated Code of Maryland, and therefore are subject to redaction from the publicly available audit report in accordance with the State Government Article 2-1224(i). Although the specifics of the following findings, including the analysis, related recommendations, along with MDOT’s responses, have been redacted from this report copy, MDOT’s responses indicated agreement with the findings and related recommendations.

**Finding 1**  
Redacted cybersecurity-related finding.

Agency Response has been redacted by OLA.

**Finding 2**  
Redacted cybersecurity-related finding.

Agency Response has been redacted by OLA.

**Finding 3**  
Redacted cybersecurity-related finding.

Agency Response has been redacted by OLA.

**Finding 4**  
Redacted cybersecurity-related finding.

Agency Response has been redacted by OLA.

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