

Office of the Auditor General
Performance Audit Report

**Customer and Automotive Records System -
Vehicle Component**
Department of State

October 2022

The auditor general shall conduct post audits of financial transactions and accounts of the state and of all branches, departments, offices, boards, commissions, agencies, authorities and institutions of the state established by this constitution or by law, and performance post audits thereof.

The auditor general may make investigations pertinent to the conduct of audits.

Article IV, Section 53 of the Michigan Constitution



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Report Summary

*Performance Audit
Customer and Automotive Records System
(CARS) - Vehicle Component
Department of State*

Report Number:
231-0592-22

Released:
October 2022

CARS is an automated system used by the Department of State to process driver and vehicle-related transactions and the associated financial and administrative reporting requirements. CARS has 1,275 users at 130 Secretary of State branch offices and other government offices. From October 2020 through June 2022, CARS processed \$2.5 billion of revenue through vehicle registration transactions. As of May 19, 2022, CARS contained active vehicle registration records for 8.0 million motor vehicles, including 238,000 motorcycles; 3.0 million trailers; 701,000 watercraft; 178,000 snowmobiles; and 23,000 mopeds.

Audit Objective			Conclusion
Objective 1: To assess the accuracy of CARS processing of vehicle registration taxes.			Accurate
Findings Related to This Audit Objective	Material Condition	Reportable Condition	Agency Preliminary Response
None reported.	Not applicable.		

Audit Objective			Conclusion
Objective 2: To assess the sufficiency of the Department of State's efforts to ensure the accuracy of CARS vehicle registration records.			Sufficient
Findings Related to This Audit Objective	Material Condition	Reportable Condition	Agency Preliminary Response
None reported.	Not applicable.		

Audit Objective			Conclusion
Objective 3: To assess the effectiveness of selected CARS access controls.			Effective
Findings Related to This Audit Objective	Material Condition	Reportable Condition	Agency Preliminary Response
The Department of State did not establish a process to ensure CARS access rights were reevaluated when the application was updated. For two judgmentally selected user roles, 1,323 (41%) of the 3,263 privileges assigned were improperly documented or needed to be removed because they were not in use (<u>Finding 1</u>).		X	Agrees

Audit Objective			Conclusion
Objective 4: To assess the effectiveness of the Department of State's efforts to ensure complete and accurate processing of CARS interface to the Statewide Integrated Governmental Management Applications (SIGMA).			Effective
Findings Related to This Audit Objective	Material Condition	Reportable Condition	Agency Preliminary Response
None reported.	Not applicable.		

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Office of the Auditor General
201 N. Washington Square, Sixth Floor
Lansing, Michigan 48913

Doug A. Ringler, CPA, CIA
Auditor General

Laura J. Hirst, CPA
Deputy Auditor General



OAG

Office of the Auditor General

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Doug A. Ringler, CPA, CIA
Auditor General

October 20, 2022

The Honorable Jocelyn Benson
Secretary of State
Richard H. Austin Building
Lansing, Michigan

Dear Secretary Benson:

This is our performance audit report on the Customer and Automotive Records System - Vehicle Component, Department of State.

We organize our findings and observations by audit objective. Your agency provided the preliminary response to the recommendation at the end of our fieldwork. The *Michigan Compiled Laws* and administrative procedures require an audited agency to develop a plan to comply with the recommendations and to submit it to the State Budget Office upon completion of an audit. Within 30 days of receipt, the Office of Internal Audit Services, State Budget Office, is required to review the plan and either accept the plan as final or contact the agency to take additional steps to finalize the plan.

We appreciate the courtesy and cooperation extended to us during this audit.

Sincerely,

Doug Ringler
Auditor General

TABLE OF CONTENTS

CUSTOMER AND AUTOMOTIVE RECORDS SYSTEM - VEHICLE COMPONENT

	<u>Page</u>
Report Summary	1
Report Letter	3
Audit Objectives, Conclusions, Findings, and Observations	
Accuracy of Vehicle Registration Taxes	8
Accuracy of Vehicle Registration Records	10
CARS Application Access Controls	12
Findings:	
1. More effective application access controls needed.	13
CARS and SIGMA Interface Accuracy	14
System Description	15
Audit Scope, Methodology, and Other Information	16
Glossary of Abbreviations and Terms	22

AUDIT OBJECTIVES, CONCLUSIONS, FINDINGS, AND OBSERVATIONS

ACCURACY OF VEHICLE REGISTRATION TAXES

BACKGROUND

The Customer and Automotive Records System* (CARS) is used by the Department of State to process vehicle-related transactions, including registrations, title transfers, and recreation passports. The Department of State administers and enforces sections of the Michigan Vehicle Code (Public Act 300 of 1949) and the Natural Resources and Environmental Protection Act (Public Act 451 of 1994), which state the tax amounts to be administered for vehicle registrations.

Vehicle registration taxes are determined based on the vehicle body style. Body style is assessed by manufacturer's suggested retail price (MSRP), gross vehicle weight (GVW), or a flat fee based on schedules within Public Act 300 and Public Act 451. Vehicles assessed by MSRP have their registration tax amount decreased by 10% for the second, third, and fourth time the vehicle is registered, with all subsequent registrations assessed at the amount of the fourth registration.

From October 1, 2020 through June 30, 2022, CARS processed 17.4 million vehicle registration tax transactions totaling \$2.5 billion as follows:

Vehicle	Number of Transactions	Registration Tax Amount
Passenger	15,544,709	\$2,233,086,623
GVW	657,370	254,020,565
Other	462,492	15,965,613
Recreational	697,392	23,178,819
Total	17,361,963	\$2,526,251,619

AUDIT OBJECTIVE

To assess the accuracy of CARS processing of vehicle registration taxes.

CONCLUSION

Accurate.

FACTORS IMPACTING CONCLUSION

- CARS accurately processed vehicle registration taxes for 99.6% of the \$2.5 billion of registration taxes we recalculated. For the remaining 0.4%, we were not able to recalculate because of inconsistencies between registration tax transactions and variations in customer transactions, such as personalized plates, replacement plates, and recreation passports.

* See glossary at end of report for definition.

- For all 66 vehicle registration transactions sampled that were based on MSRP or GVW, CARS:
 - Contained appropriate vehicle data.
 - Appropriately classified vehicles based on make and model.
 - Contained a reasonable MSRP or GVW.
 - Accurately calculated vehicle registration taxes based on MSRP or GVW.
- For all 10 watercraft transactions sampled, CARS charged the correct registration fee based on length or body style.
- For all 10 motorcycle transactions sampled, CARS:
 - Contained appropriate vehicle data.
 - Classified the motorcycle correctly based on make and model.
 - Accurately calculated the vehicle registration tax.

ACCURACY OF VEHICLE REGISTRATION RECORDS

BACKGROUND

The Michigan Vehicle Code (Public Act 300 of 1949) provides registration requirements the Department of State must follow for a vehicle to be considered operable on a highway or any other place open to the general public. All registrations must have an ownership name, ownership address, and vehicle type. Motor vehicles must be renewed annually. Watercraft, snowmobile, and moped registrations must be renewed every three years. Trailers have a permanent registration.

CARS maintains all vehicle registration records for the State and contains edit checks to detect errors such as inaccurate zip codes and MSRP and blank ownership names. Updates to vehicle records occur at various places, including Department of State branch offices, the Department of State Web site, and dealerships.

As of May 19, 2022, CARS contained approximately 12 million vehicle registration records as follows:

Vehicle Type	Number of Registration Records
Motor vehicle*	8,020,992
Trailer	3,062,615
Watercraft	700,733
Snowmobile	178,077
Moped	23,412
Total	11,985,829

* The number of motor vehicle registration records includes 237,519 motorcycles.

AUDIT OBJECTIVE

To assess the sufficiency of the Department of State's efforts to ensure the accuracy of CARS vehicle registration records.

CONCLUSION

Sufficient.

FACTORS IMPACTING CONCLUSION

- The Department of State implemented edit checks within CARS to ensure fields required by law are completed.
- The Department of State implemented edit checks within CARS to ensure the validity of all data.
- 100% of active registration records in CARS contained ownership names for all motor vehicles, trailers, watercrafts, snowmobiles, and mopeds.

- CARS contained required address information for 99.9% of the required address fields for motor vehicles, trailers, watercrafts, snowmobiles, and mopeds.
- No significant risks were identified in our testing of CARS data regarding ownership name, zip code, and state.

CARS APPLICATION ACCESS CONTROLS

BACKGROUND

Security* controls are management, operational, and technical controls designed to protect the availability*, confidentiality*, and integrity* of a system and its information.

Access controls* limit or detect inappropriate access to computer resources, thereby protecting the resources from unauthorized modification, loss, and disclosure. For access controls to be effective, they should be properly authorized, implemented, and maintained.

As of May 2, 2022, 1,275 active users had access to CARS.

AUDIT OBJECTIVE

To assess the effectiveness* of selected CARS access controls.

CONCLUSION

Effective.

FACTORS IMPACTING CONCLUSION

- The Department of State effectively implemented controls over the granting of CARS user access in accordance with State policies, standards, and procedures.
- The Department of State effectively implemented controls to remove users who no longer required CARS access rights in accordance with State policies, standards, and procedures.
- The Department of State established and implemented policies and procedures for monitoring over CARS access rights.
- One reportable condition* related to more effective application access controls (Finding 1).

* See glossary at end of report for definition.

FINDING 1

More effective application access controls needed.

The Department of State should establish a process to ensure CARS access rights are reevaluated when the application is updated. Delayed removal of access rights increases the risk of unauthorized access, use, and modification of CARS data.

State of Michigan Technical Standard 1340.00.020.01 defines the security control baselines for access to information systems. The Standard requires State agencies to establish a process to control and document the assignment of access rights based on current job responsibilities and the principle of least privilege*. The Standard also requires State agencies to monitor information system modifications and perform removal actions periodically.

We judgmentally selected two user roles assigned 3,263 privileges to assess the appropriateness of their access rights. We noted 1,323 (41%) of the 3,263 privileges assigned were improperly documented or could be removed because they were not in use.

Without proper documentation of the capabilities of each user, a security administrator cannot effectively ensure users are limited to the access rights necessary to perform their job functions.

The Department of State informed us that during CARS application updates, it relied on the vendor to identify and remove unnecessary privileges.

RECOMMENDATION

We recommend that the Department of State establish a process to ensure CARS access rights are reevaluated when the application is updated.

AGENCY PRELIMINARY RESPONSE

The Department of State provided us with the following response:

The Department of State agrees with the recommendation and will establish a process to ensure CARS access rights are reevaluated when the application is updated. The Department of State relies on the vendor to identify and remove unnecessary privileges after application updates. Requests were submitted to the vendor to correct improperly documented privileges, and to add more guidance to the privilege description fields to improve the documentation of future privileges. The Department of State met with the vendor to begin removing privileges that were not in use. The Department of State will establish a process for the vendor to reevaluate CARS access rights after application updates.

* See glossary at end of report for definition.

CARS AND SIGMA INTERFACE ACCURACY

BACKGROUND

Interface controls* ensure the accurate, complete, and timely processing of data exchanged between information systems.

Between October 2020 and June 2022, \$5.5 billion in revenue processed through CARS was recorded, using an electronic interface, into the Statewide Integrated Governmental Management Applications* (SIGMA) as follows:

<u>Fiscal Year</u>	<u>Number of Transactions in SIGMA From CARS</u>	<u>Revenue Interfaced From CARS to SIGMA</u>
October 2020 to September 2021	2,614,110	\$3,013,166,168
October 2021 to June 2022	<u>2,367,062</u>	<u>2,454,860,960</u>
Totals	<u>4,981,172</u>	<u>\$5,468,027,128</u>

To ensure all CARS revenue is transferred accurately and completely to SIGMA, the Department of State performs daily and monthly reconciliations.

AUDIT OBJECTIVE

To assess the effectiveness of the Department of State's efforts to ensure complete and accurate processing of CARS interface to SIGMA.

CONCLUSION

Effective.

FACTORS IMPACTING CONCLUSION

- The Department of State implemented a daily reconciliation process to compare transaction batch totals from CARS with SIGMA.
- The Department of State implemented a monthly reconciliation process to compare transaction dollar totals between CARS and SIGMA.
- For all 33 CARS transactions sampled, we verified the transactions were accurately represented in SIGMA.
- For all 33 SIGMA transactions sampled, we verified the transactions were accurately supported by transactions in CARS.

* See glossary at end of report for definition.

SYSTEM DESCRIPTION

CARS is an automated information system used by the Department of State to process and collect registration taxes. The Department of State and Department of Technology, Management, and Budget (DTMB) contracted with FAST Enterprises for \$59 million for the development and implementation of CARS. CARS had two major components: vehicle and driver. Significant processes related to motor vehicles were implemented in February 2019, and significant processes related to driver's licenses were implemented in March 2021. One of the primary goals of CARS is to collect registration taxes for motor vehicles, trailers, watercraft, snowmobiles, and mopeds for the State of Michigan. The Department of State collected revenue of \$2.5 billion from registration taxes through CARS from October 2020 through June 2022. The Department of State has 130 branches that access and use CARS.

DTMB is responsible for the maintenance and security of the CARS operating system, database, and network configurations, in conjunction with the vendor. FAST Enterprises is responsible for the development of CARS and assists with system maintenance and updates.

AUDIT SCOPE, METHODOLOGY, AND OTHER INFORMATION

AUDIT SCOPE

To examine the system and other records related to the CARS vehicle component. We conducted this performance audit* 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.

Our audit did not include assessing Department of State branch office controls, driver's license component controls, or DTMB operating system, database, and network controls. Therefore, we provide no conclusions related to these items.

As part of the audit, we considered the five components of internal control (control environment, risk assessment, control activities, information and communication, and monitoring activities) relative to the audit objectives and determined all components were significant.

PERIOD

Our audit procedures, which included a preliminary survey, audit fieldwork, report preparation, analysis of agency responses, and quality assurance, generally covered October 1, 2020 through June 30, 2022.

METHODOLOGY

We conducted a preliminary survey to gain an understanding of the CARS vehicle portion to establish our audit objectives, scope, and methodology. During our preliminary survey, we:

- Interviewed Department of State management and staff to obtain an understanding of CARS.
- Reviewed laws, regulations, and administrative rules related to the Department of State and CARS.
- Reviewed fiscal year 2021 registration transactions to obtain an understanding of the information within CARS.
- Reviewed various financial coding and data from SIGMA for fiscal years 2020, 2021, and 2022 related to CARS.
- Obtained an understanding of Department of State key processes and controls significant to the potential audit objectives.

* See glossary at end of report for definition.

- Obtained an understanding of Department of State and DTMB processes for:
 - Granting and monitoring user access to CARS.
 - Managing database and operating system configurations, access, and vulnerability.
- Determined whether the Department of State performed an internal control assessment over CARS addressing security controls.

OBJECTIVE 1

To assess the accuracy of CARS processing of vehicle registration taxes.

To accomplish this objective, we:

- Reviewed various sections of the *Michigan Compiled Laws* to identify the requirements for vehicle registration taxes.
- Conducted data analysis to review and evaluate the 17.4 million registration transactions in CARS from October 2020 through June 2022 and recalculated registration taxes to determine whether CARS accurately processed registration taxes.
- Randomly and judgmentally sampled 86 of 15.6 million registration tax transactions from October 2020 through June 2022, including vehicles taxed based on MSRP or GVW, watercraft, and motorcycles. We divided our sample into three subpopulations based on Michigan Vehicle Code requirements and the information available. We randomly and judgmentally sampled:
 - 66 of 14.6 million vehicle registration tax transactions based on MSRP or GVW to determine whether CARS:
 - Contained appropriate vehicle data.
 - Appropriately classified the vehicle based on make and model.
 - Contained a reasonable MSRP or GVW.
 - Accurately calculated vehicle registration taxes based on MSRP or GVW.
 - 10 of 543,032 watercraft registration tax transactions to assess whether CARS charged the proper registration fee based on length or body style.

- 10 of 438,357 motorcycle registration tax transactions to determine whether CARS:
 - Contained appropriate vehicle data.
 - Classified the motorcycle correctly based on make and model.
 - Accurately calculated the vehicle registration tax.
- Conducted data analysis to determine whether the Department of State has a process in place to identify and correct MSRPs not in a standard range for a given make and model.

Our random samples were selected to eliminate bias and enable us to project the results to the respective populations. Our judgmental samples were selected based on risk and to ensure significant State government operations within the population were sufficiently reviewed. For our judgmental samples, we could not project the results to the respective populations.

OBJECTIVE 2

To assess the sufficiency of the Department of State's efforts to ensure the accuracy of CARS vehicle registration records.

To accomplish this objective, we:

- Reviewed various sections of the *Michigan Compiled Laws* to identify registration requirements.
- Identified and verified CARS edit checks to ensure name and address fields cannot be left blank and contain valid data.
- Using analytical procedures, we reviewed the 12 million active vehicle registration records in CARS including motor vehicle, trailer, watercraft, snowmobile, and moped records as of May 19, 2022 to identify missing or inaccurate data in the following:
 - Blank name fields.
 - Blank address fields.
 - Invalid State fields.
 - Invalid zip code and State combinations.

- Using analytical procedures, we reviewed the 8 million active CARS motor vehicle records as of May 19, 2022 to identify invalid data including:
 - Duplicate vehicle identification numbers (VINs).
 - Invalid vehicle makes.
 - Invalid model years.
- Judgmentally sampled 60 of the 12 million active vehicle registration names as of May 19, 2022 to test their validity by researching the business name online.
- Randomly sampled 33 of the 12 million active vehicle registration owners' addresses as of May 19, 2022 to ensure their validity by verifying the addresses online.

Our random samples were selected to eliminate bias and enable us to project the results to the respective populations. Our judgmental samples were selected based on risk and to ensure significant State government operations within the population were sufficiently reviewed. For our judgmental samples, we could not project the results to the respective populations.

OBJECTIVE 3

To assess the effectiveness of selected CARS access controls.

To accomplish this objective, we:

- Randomly sampled 33 of 1,275 active users as of May 2, 2022 to determine whether appropriate access controls were implemented for granting user access to CARS.
- Reviewed all 1,275 active users in CARS as of May 2, 2022 to determine whether a control was implemented to ensure users were being removed after 30 days of inactivity.
- Ensured all 1,275 active CARS users were active, non-terminated employees recorded in the State's Human Resources Management Network* as of May 2, 2022.
- Reviewed the 183 State employees who terminated employment between October 2020 and May 2022 to determine whether:
 - Effective controls were implemented to ensure terminated users were removed in a timely manner as required by State of Michigan Technical Standard 1340.00.020.01.

* See glossary at end of report for definition.

- The user accounts were not used to log into CARS after the termination date.
- Reviewed all 11 users with security administrator privileges as of May 2, 2022 to determine whether the level of access was appropriate.
- Reviewed individuals with two or more CARS user roles to determine whether the roles were incompatible.
- Judgmentally sampled two user roles assigned to 340 of 1,275 active users as of May 2, 2022 to assess the appropriateness of the privileges assigned to those roles.

Our random samples were selected to eliminate bias and enable us to project the results to the respective populations. Our judgmental samples were selected based on risk and to ensure significant State government operations within the population were sufficiently reviewed. For our judgmental samples, we could not project the results to the respective populations.

OBJECTIVE 4

To assess the effectiveness of the Department of State's efforts to ensure complete and accurate processing of CARS interface to SIGMA.

To accomplish this objective, we:

- Randomly sampled 33 of the 456 weekdays from October 2020 through June 2022 to determine whether:
 - The Department of State implemented a daily reconciliation control to ensure complete processing of transactions between CARS and SIGMA.
 - The number of CARS and SIGMA daily transactions totals reconciled.
- Randomly sampled 5 of 21 months from October 2020 through June 2022. We then judgmentally subsampled 27 account balances over \$10 million from those months and randomly sampled 1 account balance from each month of the remaining account balances. This subsample represented \$1.1 billion (20%) of the total \$5.5 billion in revenue transferred from CARS to SIGMA from October 2020 through June 2022. The purpose of our review was to assess whether:
 - The Department of State implemented a monthly reconciliation control of account balances between CARS and SIGMA.

- Account balances in CARS and SIGMA reconciled.
- Randomly sampled 33 of the 14.6 million registration tax transactions for vehicles based on MSRP or GVW from October 2020 through June 2022 to determine whether these transactions were accurately recorded in SIGMA.
- Randomly sampled 33 of the 5.0 million SIGMA revenue transactions from October 2020 through June 2022 to verify the accounting records in SIGMA were accurately supported by documentation in CARS.

Our random samples were selected to eliminate bias and enable us to project the results to the respective populations. Our judgmental samples were selected based on risk and to ensure significant State government operations within the population were sufficiently reviewed. For our judgmental samples, we could not project the results to the respective populations.

CONCLUSIONS

We base our conclusions on our audit efforts and any resulting material conditions* or reportable conditions.

When selecting activities or programs for audit, we direct our efforts based on risk and opportunities to improve State government operations. Consequently, we prepare our performance audit reports on an exception basis.

AGENCY RESPONSES

Our audit report contains 1 finding and 1 corresponding recommendation. The Department of State's preliminary response indicates it agrees with the recommendation.

The agency preliminary response following each recommendation in our report was taken from the agency's written comments and oral discussion at the end of our fieldwork. Section 18.1462 of the *Michigan Compiled Laws* and the State of Michigan Financial Management Guide (Part VII, Chapter 4, Section 100) require an audited agency to develop a plan to comply with the recommendations and to submit it to the State Budget Office upon completion of an audit. Within 30 days of receipt, the Office of Internal Audit Services, State Budget Office, is required to review the plan and either accept the plan as final or contact the agency to take additional steps to finalize the plan.

* See glossary at end of report for definition.

GLOSSARY OF ABBREVIATIONS AND TERMS

access controls	Controls that protect data from unauthorized modification, loss, or disclosure by restricting access and detecting inappropriate access attempts.
availability	Timely and reliable access to data and information systems.
confidentiality	Protection of data from unauthorized disclosure.
Customer and Automotive Records System (CARS)	An information system consisting of multiple integrated modules and subsystems that provide motor vehicle agencies with a single-source solution for the complete administration of driver licensing, vehicle titling and registration, and business licensing of Michigan Department of State regulated industries. The vehicle portion of CARS generates transaction applications (via the Web and/or in the branch office) for the issuance and maintenance of vehicle, watercraft, snowmobile, and moped titles and registrations.
DTMB	Department of Technology, Management, and Budget.
effectiveness	Success in achieving mission and goals.
GVW	gross vehicle weight.
Human Resources Management Network	The State's integrated human resources system that processes personnel, payroll, and employee benefits data.
integrity	Accuracy, completeness, and timeliness of data in an information system.
interface controls	Controls that ensure the accurate, complete, and timely processing of data exchanged between information systems.
material condition	A matter that, in the auditor's judgment, is more severe than a reportable condition and could impair the ability of management to operate a program in an effective and efficient manner and/or could adversely affect the judgment of an interested person concerning the effectiveness and efficiency of the program. Our assessment of materiality is in relation to the respective audit objective.
MSRP	manufacturer's suggested retail price.

performance audit	An audit that provides findings or conclusions based on an evaluation of sufficient, appropriate evidence against criteria. Performance audits provide objective analysis to assist management and those charged with governance and oversight in using the information to improve program performance and operations, reduce costs, facilitate decision-making by parties with responsibility to oversee or initiate corrective action, and contribute to public accountability.
principle of least privilege	The practice of limiting access to the minimal level that will allow normal functioning. Applied to employees, the principle of least privilege translates to giving people the lowest level of user access rights they can have and still do their jobs. The principle is also applied to things other than people, including programs and processes.
reportable condition	A matter that, in the auditor's judgment, is less severe than a material condition and falls within any of the following categories: a deficiency in internal control; noncompliance with provisions of laws, regulations, contracts, or grant agreements; opportunities to improve programs and operations; or fraud.
security	Safeguarding an entity's data from unauthorized access or modification to ensure its availability, confidentiality, and integrity.
Statewide Integrated Governmental Management Applications (SIGMA)	The State's enterprise resource planning business process and software implementation that support budgeting, accounting, purchasing, human resource management, and other financial management activities.



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