MICHIGAN

OFFICE OF THE AUDITOR GENERAL

AUDIT REPORT

Thomas H. McTavish, C.P.A.
Auditor General

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.

– Article IV, Section 53 of the Michigan Constitution

Performance Audit

Advanced Purchasing and Inventory Control System (ADPICS)

Department of Management and Budget (DMB), Office of the State Budget (OSB), and Michigan Department of Information Technology (MDIT)

Report Number:
084-0522-08

Released:
July 2009

ADPICS is the State's procurement and materials management system. State agencies use ADPICS to enter vouchers into the Michigan Administrative Information Network to initiate payments. ADPICS was developed and implemented in 1994. MDIT provides information system support for ADPICS, including system development and maintenance, database and operating system security and administration, and backup and recovery. In fiscal years 2006-07 and 2007-08, ADPICS processed a total of 3.1 million transactions for purchases of $27.4 billion.

Audit Objective:
To assess the effectiveness of DMB and MDIT's efforts to establish controls to prevent and detect transactions that exceed the purchasing authority in ADPICS.

Audit Conclusion:
DMB and MDIT's efforts to establish controls to prevent and detect transactions that exceed the purchasing authority in ADPICS were moderately effective. We noted two reportable conditions (Findings 1 and 2).

Reportable Conditions:
DMB did not track available balances for all State contracts in ADPICS (Finding 1).

DMB did not timely identify and investigate the purchase of items that were split into multiple transactions by agencies to bypass delegated purchasing authority (Finding 2).

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Audit Objective:
To assess the effectiveness of OSB and MDIT's security and access controls over ADPICS.

Audit Conclusion:
OSB and MDIT's security and access controls over ADPICS were moderately effective. We noted two reportable conditions (Findings 3 and 4).

Reportable Conditions:
OSB did not obtain an ADPICS security framework from the Department of Human Services (Finding 3).

OSB and MDIT had not fully established effective security and access controls over ADPICS (Finding 4).

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Audit Objective:
To assess the effectiveness of OSB and MDIT's controls to ensure the complete and accurate transfer of data from ADPICS

to the Relational Standard Accounting and Reporting System (R*STARS).

Audit Conclusion:
OSB and MDIT's controls to ensure the complete and accurate transfer of data from ADPICS to R*STARS were effective. Our report does not include any reportable conditions related to this audit objective.

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Agency Response:
Our audit report contains 4 findings and 4 corresponding recommendations. DMB, OSB, and MDIT's preliminary responses indicate that they generally agree with all of the recommendations and have complied or will comply with them.

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July 14, 2009

Ms. Lisa Webb Sharpe, Director
Department of Management and Budget
Lewis Cass Building
Lansing, Michigan
and
Mr. Robert L. Emerson, State Budget Director
Office of the State Budget
Department of Management and Budget
George W. Romney Building
Lansing, Michigan

Mr. Kenneth D. Theis, Director
Michigan Department of Information Technology
George W. Romney Building
Lansing, Michigan

Dear Ms. Webb Sharpe, Mr. Emerson, and Mr. Theis:

This is our report on the performance audit of the Advanced Purchasing and Inventory Control System (ADPICS), Department of Management and Budget, Office of the State Budget, and Michigan Department of Information Technology.

This report contains our report summary; description of agencies and systems; audit objectives, scope, and methodology and agency responses; comments, findings, recommendations, and agency preliminary responses; and a glossary of acronyms and terms.

Our comments, findings, and recommendations are organized by audit objective. The agency preliminary responses were taken from the agencies' responses subsequent to our audit fieldwork. The *Michigan Compiled Laws* and administrative procedures require that the audited agency develop a formal response within 60 days after release of the audit report.

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

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DEPARTMENT OF MANAGEMENT AND BUDGET,
OFFICE OF THE STATE BUDGET, AND
MICHIGAN DEPARTMENT OF INFORMATION TECHNOLOGY

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The Advanced Purchasing and Inventory Control System (ADPICS) is the State's procurement and materials management system. Procurement of goods and services can be made by purchase order*, direct purchase order*, or blanket purchase order*. The Relational Standard Accounting and Reporting System (R*STARS) is the State's comprehensive financial information system that provides for accounting, budgetary control, and financial reporting. ADPICS and R*STARS are the two primary components of the State's accounting system, the Michigan Administrative Information Network (MAIN). ADPICS interfaces with R*STARS to perform purchasing, receiving, and payment processing for State agencies. State agencies use ADPICS to enter vouchers into MAIN to initiate payments.

Department of Management and Budget (DMB) Purchasing Operations is responsible for the Statewide purchasing of supplies, materials, services, and equipment needed by State agencies. DMB Purchasing Operations is also responsible for establishing the policies and procedures related to purchasing. The Office of Financial Management (OFM), Office of the State Budget (OSB), is responsible for MAIN and the security of ADPICS and R*STARS. Agencies annually submit to OFM a security framework that documents the methodology for user access to ADPICS and R*STARS. The OFM Help Desk reviews and approves ADPICS access requests and sets up user security profiles. The OFM Help Desk is responsible for ensuring that requests comply with the agency's security framework and OFM policy. There are approximately 4,600 ADPICS users.

ADPICS was developed by a contractor and implemented in 1994. The Michigan Department of Information Technology provides information system support for ADPICS, including system development and maintenance, database and operating system security and administration, and backup and recovery. In fiscal years 2006-07 and 2007-08, ADPICS processed a total of 3.1 million transactions for purchases of $27.4 billion.

* See glossary at end of report for definition.

Audit Objectives, Scope, and Methodology
and Agency Responses

<u>Audit Objectives</u>

Our performance audit* of the Advanced Purchasing and Inventory Control System (ADPICS), Department of Management and Budget (DMB), Office of the State Budget (OSB), and Michigan Department of Information Technology (MDIT), had the following objectives:

1. To assess the effectiveness* of DMB and MDIT's efforts to establish controls to prevent and detect transactions that exceed the purchasing authority in ADPICS.

2. To assess the effectiveness of OSB and MDIT's security and access controls over ADPICS.

3. To assess the effectiveness of OSB and MDIT's controls to ensure the complete and accurate transfer of data from ADPICS to the Relational Standard Accounting and Reporting System (R*STARS).

<u>Audit Scope</u>

Our audit scope was to examine the information processing and other records of the Advanced Purchasing and Inventory Control System (ADPICS). 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 procedures, conducted from June through December 2008, generally covered the period October 1, 2006 through December 31, 2008.

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Audit Methodology

To accomplish our audit objectives, our audit methodology included the following phases:

1. Preliminary Review and Evaluation Phase
   We conducted a preliminary review of security and access controls over ADPICS. We obtained an understanding of controls over ADPICS, including an understanding of the DMB business processes related to ADPICS.   We used the results of our preliminary review to determine the extent of our detailed analysis and testing.

2. Detailed Analysis and Testing Phase
   We performed an assessment of application controls over ADPICS:

   a. Purchasing Authority Controls:

      We reviewed the Office of Financial Management's (OFM's) policies and procedures for managing purchasing authority controls.   We randomly selected 90 direct voucher* purchasing transactions and reviewed the effectiveness of DMB's controls to ensure that transactions did not exceed the purchasing authority of agencies.   We analyzed 58,832 purchase orders to identify purchase orders that agencies potentially split.

   b. Security and Access Controls:

      We examined and tested user identification controls over ADPICS.   We randomly selected and tested user security request forms for ADPICS.   We examined and tested user access permissions for all ADPICS users.   We reviewed and assessed the oversight of ADPICS security by OFM.

   c. Data Interface Controls:

      We reviewed and assessed controls over the complete and accurate transfer of data from ADPICS to R*STARS.

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When selecting activities or programs for audit, we use an approach based on assessment of risk and opportunity for improvement. Accordingly, we focus our audit efforts on activities or programs having the greatest probability for needing improvement as identified through a preliminary review. Our limited audit resources are used, by design, to identify where and how improvements can be made. Consequently, we prepare our performance audit reports on an exception basis.

Agency Responses

Our audit report contains 4 findings and 4 corresponding recommendations. DMB, OSB, and MDIT's preliminary responses indicate that they generally agree with all of the recommendations and have complied or will comply with them.

The agency preliminary response that follows each recommendation in our report was taken from the agencies' written comments and oral discussion subsequent to our audit fieldwork. Section 18.1462 of the *Michigan Compiled Laws* and the State of Michigan Financial Management Guide (Part VII, Chapter 4, Section 100) require DMB, OSB, and MDIT to develop a formal response to our audit findings and recommendations within 60 days after release of the audit report.

COMMENTS, FINDINGS, RECOMMENDATIONS, AND AGENCY PRELIMINARY RESPONSES

EFFECTIVENESS OF
PURCHASING AUTHORITY CONTROLS

COMMENT

Audit Objective: To assess the effectiveness of the Department of Management and Budget (DMB) and the Michigan Department of Information Technology's (MDIT's) efforts to establish controls to prevent and detect transactions that exceed the purchasing authority in the Advanced Purchasing and Inventory Control System (ADPICS).

Audit Conclusion: DMB and MDIT's efforts to establish controls to prevent and detect transactions that exceed the purchasing authority in ADPICS were moderately effective. Our assessment disclosed two reportable conditions* related to contract* balances and split transactions (Findings 1 and 2).

FINDING

1. Contract Balances

    DMB did not track available balances for all State contracts in ADPICS. As a result, DMB could not ensure that agencies did not overspend State contracts.

    According to the Office of Financial Management's (OFM's) 1997 memorandum entitled "New Statewide Policy and Procedures for Uniform Accounting and Reporting of Contractual Agreements and Related Expenditures," DMB is responsible for administering and controlling State contract expenditures to ensure that State contracts are not overspent. To determine the remaining balance on a contract, DMB requires agencies to link contract payments to the related contract in ADPICS. We noted:

    a. DMB did not ensure that ADPICS was designed with the ability to calculate the remaining balance on all contracts. In addition, when agencies recorded a payment against a contract, the contract number was not a required field in ADPICS.

    b. DMB did not have a manual process to calculate the remaining balance on all contracts to record the remaining balance in ADPICS.

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c. DMB did not ensure that agencies linked the contract payments to the related contracts. We randomly selected 90 direct voucher payment transactions in ADPICS from October 2006 through July 2008. Of these 90 transactions, we identified 6 transactions that required the agency to record a contract number in ADPICS. We noted that the agency did not record the contract number in ADPICS for all 6 transactions totaling $49,616.

DMB informed us that there is a risk that the State has overspent contracts. However, DMB is unable to determine the number of contracts or the dollar amount overspent because contract payments were not linked to the contract in ADPICS.

RECOMMENDATION

We recommend that DMB track available balances for all State contracts in ADPICS.

AGENCY PRELIMINARY RESPONSE

DMB partially agrees with the recommendation and informed us that it has recently reinstated the manual process for routinely tracking available contract balances. In addition, DMB informed us that, as stated in part a. of the finding, current ADPICS functionality does not systematically require agencies to enter the contract number when recording payments against a contract, although the contract number is required by DMB policy. Further, DMB informed us that it will explore the cost-effectiveness of modifying ADPICS to automatically track available contract balances.

FINDING

2. Split Transactions

DMB did not timely identify and investigate the purchase of items that were split into multiple transactions by agencies to bypass delegated purchasing authority. As a result, DMB could not detect agencies that may have circumvented controls and purchased items without proper approval. In addition, agencies could purchase items without obtaining a State contract that may ensure the best value.

DMB Administrative Guide procedure 0510.01 delegates purchasing authority to agencies for purchases up to $25,000. For purchases in excess of $25,000, agencies must obtain DMB approval and follow the State's contracting process

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unless there is an exemption. Procedure 0510.01 states that agencies must not divide purchases exceeding $25,000 into separate orders with the intent to avoid additional review and approval by DMB.

DMB developed a preliminary process to identify split transactions. However, DMB has not determined the coding for purchases in ADPICS necessary to fully identify potentially split transactions. In addition, DMB's preliminary process used purchase orders from prior fiscal years that identified potentially split transactions that occurred over a year ago. By analyzing current purchase orders, DMB could identify split transactions to determine if a contract exists or if the State should request bids for the purchase. DMB can remove an agency's delegated authority if an agency violates the policy; however, DMB informed us that it has never done so.

For the period March through August 2008, we identified in ADPICS 144 purchase order transactions totaling $1.9 million created by 9 agencies that appeared to be split purchases. These transactions included multiple purchases processed by the same agency to the same vendor, on the same date, and by the same employee. Splitting the purchase transactions could bypass the agencies' need for DMB approval and the State's contracting process.

RECOMMENDATION

We recommend that DMB timely identify and investigate the purchase of items that were split into multiple transactions by agencies to bypass delegated purchasing authority.

AGENCY PRELIMINARY RESPONSE

DMB agrees and informed us that it will work to improve its current process, including the frequency and timing of reviews. In addition, DMB informed us that it believes its current process is effective based on the number of potential exceptions identified during the audit (i.e., 144 potential split transactions during a six-month period in relation to approximately 59,000 purchase order transactions processed in ADPICS from March through August 2008).

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EFFECTIVENESS OF
SECURITY AND ACCESS CONTROLS

<u>**COMMENT**</u>

Audit Objective: To assess the effectiveness of the Office of the State Budget (OSB) and MDIT's security and access controls over ADPICS.

Audit Conclusion: OSB and MDIT's security and access controls over ADPICS were moderately effective. Our assessment disclosed two reportable conditions related to security framework and security and access controls (Findings 3 and 4).

<u>**FINDING**</u>

3. <u>Security Framework</u>

OSB did not obtain an ADPICS security framework from the Department of Human Services (DHS). Therefore, OSB cannot ensure that DHS implemented the State's security policy for ADPICS to enforce a segregation of duties for users that would help prevent unauthorized purchases.

The State of Michigan Financial Management Guide (FMG) for the Statewide financial systems requires agencies to annually submit to OFM a security framework that documents the methodology an agency uses to administer ADPICS security. The security frameworks identify the type of staff assigned to user classes and the type of transactions that are performed with the user classes in the agency to prevent incompatible duties in job functions that would help prevent or detect errors and irregularities. OFM reviews the security frameworks to ensure that the State's established security policy is implemented by the agencies. In addition, OFM uses the approved security frameworks to establish and update the access granted to each user. OFM requires security frameworks for the 29 agencies with access to ADPICS.

We reviewed the security frameworks that OFM obtained from the agencies for fiscal year 2007-08 and noted that DHS did not submit a security framework to OFM. OFM informed us that DHS has never submitted a security framework. DHS processed transactions totaling $7.8 billion for fiscal year 2007-08. The absence of a security framework prevents OFM from ensuring that DHS's security structure complies with the State's security guidelines. In addition, without a security

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framework, OFM cannot verify that user access requests comply with the agency's approved security framework.

RECOMMENDATION

We recommend that OSB obtain an ADPICS security framework from DHS.

AGENCY PRELIMINARY RESPONSE

OSB agrees and informed us that it has repeatedly requested that DHS submit an ADPICS security framework. In addition, OSB informed us that, in response to OFM's most recent request, DHS indicated that it will submit a security framework by October 1, 2009. Further, OSB informed us that it compensates for DHS's failure to submit a security framework by reviewing DHS's security requests to help ensure that the security requests comply with Statewide security policies.

FINDING

4.   Security and Access Controls

OSB and MDIT had not fully established effective security and access controls over ADPICS. Effective security and access controls help prevent or detect unauthorized or inappropriate purchases and payments.

The OFM Help Desk is responsible for maintaining the ADPICS user class templates that outline the type of activities users should be granted based on their job roles and responsibilities and for assigning user security access in ADPICS. The OFM Help Desk is also responsible for ensuring that security access requests are in compliance with agency security frameworks and the State's security policy. Our review of ADPICS user accounts disclosed:

a.   OSB did not assign user access in compliance with the State's security policy. OFM granted access to 9 users in excess of what was appropriate for their user class. The FMG states that OFM cannot customize the access granted to users from that assigned based on their user class. OFM and agencies monitor user access with reports that identify users based on user class. Therefore, user class modifications can make some monitoring reports unreliable.

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b.   OSB did not ensure that agencies disabled user accounts of employees who no longer required access. We identified 22 ADPICS users who were on leaves of absence between 25 and 320 days that could modify, update, or delete data. OSB requires agencies to identify and disable user accounts of departed employees or employees on leaves of absence to protect against unauthorized use.

c.   OSB and MDIT did not ensure that users had the correct State employee identification (ID) numbers assigned to their MAIN user accounts. We identified 25 users whose employee ID numbers in MAIN did not match their State employee ID numbers. OSB should work with MDIT to develop a method to verify the accuracy of the employee ID numbers in MAIN. The agency and DMB use the employee ID numbers in monitoring reports to identify whether employees are currently employed with the State and if their access is appropriate for their job classification.

d.   We randomly selected 64 MAIN Financial Administration and Control System* (FACS) security request forms of ADPICS users. We noted:

(1)   OSB did not ensure that users signed security request forms. We noted 12 security request forms without user signatures. The FMG requires users to sign request forms for their initial access or any changes to their access. Signing the user security request forms ensures that the users are aware of their responsibility to keep their user ID numbers and passwords secure and that information obtained with their access will be held confidential.

(2)   OSB did not ensure that user access rights established in ADPICS agreed with the access requested on the security request form. We noted 7 (11%) of 64 security request forms that requested different access than the users were actually granted. The security request form

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documents the user's need for access rights and the signed approvals. We noted:

(a)   The user department authorization field did not match the security request form for 5 (8%) of 64 users. As a result, users may inquire or initiate documents for departments for which the user does not have a business need.

(b)   The blanket purchase order override authority field did not match the security request form for 2 (3%) of 64 users. Therefore, these users may inappropriately purchase a good or service from other than an approved blanket purchase order.

RECOMMENDATION

We recommend that OSB and MDIT fully establish effective security and access controls over ADPICS.

AGENCY PRELIMINARY RESPONSE

OSB and MDIT agree and informed us that, although they believe that the existing ADPICS security and access controls are effective, they acknowledge that some processes for documenting exceptions and monitoring compliance could be improved. In addition, OSB and MDIT informed us that they will evaluate the areas noted in the audit finding and revise the applicable processes as needed.

EFFECTIVENESS OF
DATA INTERFACE CONTROLS

COMMENT

Audit Objective: To assess the effectiveness of OSB and MDIT's controls to ensure the complete and accurate transfer of data from ADPICS to the Relational Standard Accounting and Reporting System (R*STARS).

Audit Conclusion: OSB and MDIT's controls to ensure the complete and accurate transfer of data from ADPICS to R*STARS were effective. Our report does not include any reportable conditions related to this audit objective.

GLOSSARY

Glossary of Acronyms and Terms

ADPICS   Advanced Purchasing and Inventory Control System.

blanket purchase order   Price agreements between the State and a vendor for a commodity(ies) to be purchased on an as needed basis for a specified period of time.

contract   A legally binding agreement between the State and a vendor to purchase specific goods or services at an agreed upon price. Contracts can be written as purchase orders, direct purchase orders, or blanket purchase orders.

DHS   Department of Human Services.

direct purchase order   A binding contract between the State and a vendor for the direct purchase of goods or services at a specified price that were not previously requisitioned.

direct voucher   An accounts payable that is created and posted without an associated purchase order or direct purchase order.

DMB   Department of Management and Budget.

effectiveness   Program success in achieving mission and goals.

FMG   Financial Management Guide.

ID   identification.

MAIN   Michigan Administrative Information Network.

MAIN Financial Administration and Control System (FACS)   The financial management component of MAIN, consisting of R*STARS, ADPICS, and the Report Management Distribution System (RMDS).

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MDIT	Michigan Department of Information Technology.
OFM	Office of Financial Management.
OSB	Office of the State Budget.
performance audit	An economy and efficiency audit or a program audit that is designed to provide an independent assessment of the performance of a governmental entity, program, activity, or function to improve program operations, to facilitate decision making by parties responsible for overseeing or initiating corrective action, and to improve public accountability.
purchase order	A binding contract between the State and a vendor for the purchase of requisitioned goods or services at a specified price.
reportable condition	A matter that, in the auditor's judgment, falls within any of the following categories: an opportunity for improvement within the context of the audit objectives; a deficiency in internal control that is significant within the context of the objectives of the audit; all instances of fraud; illegal acts unless they are inconsequential within the context of the audit objectives; significant violations of provisions of contracts or grant agreements; and significant abuse that has occurred or is likely to have occurred.
R*STARS	Relational Standard Accounting and Reporting System.