Department of Education
Office of Inspector General – Internal Audit
Status Report on: Information Technology Application Development & Procurement
Report # A-10/11-14   Issued: January 30, 2012
Status as of September 19, 2014

Finding	Recommendation(s)	Previous Management Response	Management Response as of September 19, 2014	Anticipated Completion Date
1. Formal written policies and procedures are needed. Department policies and procedures related to information technology (IT) application development as well as enterprise-wide project management are limited.	The Department should develop formal written policies and procedures for administering the enterprise-wide project management function, as well as IT application development and have them approved by executive management. Approved policies and procedures should be implemented and staff trained on their application. Once established, written policies and procedures should be reviewed at least annually and updated as necessary. Policies and procedures should cover the areas listed below in addition to other areas as determined necessary. *A. Project Management* • Project governance (including oversight committee charters) • Project management methodology *B. Application Development and Support* • Approved Information Systems Development Methodology • Securing software applications • Change management	*A. Project Management* **Response as of January 30, 2012** The establishment of a Project Management system was initiated in large part as a mechanism for implementing the challenging reforms required by two very large federal grants: Race to the Top and the Partnership for Assessment of Readiness for College and Careers. The timelines for both of these grants required the Department to very quickly put into place processes and procedures for managing an extensive number of complex projects. Under the leadership of the Commissioner Smith, the Project Management function was established as a way of work for the Department. Shortly thereafter, the Department went through a transition period under the leadership of an Interim Commissioner, and on July 31, 2011, Commissioner Robinson was appointed Commissioner by the State Board of Education. Throughout this period, the Project Management Oversight Committee (PMOC) has continued to evolve. Policies, procedures, and methodologies have been developed and are being used to guide the ongoing implementation, while continuing to be refined to reflect the changes in Department leadership as well as the differing types and stages of the identified projects. The written documents, including for example, the charter template, are being revised and refined concurrently to reflect the direction of the PMOC. The anticipated completion date for finalizing policies and procedures for the areas listed in the audit report is June 30, 2012. It is anticipated that this Project Management function, like those of other agencies, will continue to mature and thus the policies, procedures, and methodologies will likewise need to	*A. Project Management* **There has been no change since the March 21, 2014 response.**	*A. Project Management* Unknown

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		be continuously examined and enhanced. While the PMOC will formally adopt these written documents related to management and governance, it will be necessary to make periodic revisions to ensure that these enhancements are communicated effectively. Training of personnel has been ongoing throughout the process of establishing the system and will continue to be provided as new information is available or as additional staff become involved in the process. **Response as of March 21, 2013** Documents addressing the Project Management Office (PMO) have been drafted. The list of the documents are as follows: 1. FDOE Project Management Methodology - draft 2. FDOE PMOC Charter - draft 3. DOE Project Charter – in use 4. DOE Project Charter Instructions – in use 5. FDOE Business Case – in use 6. FDOE Project Concept – in use 7. FDOE Grant Concept – in use 8. FDOE Project Governance Policy - draft 9. FDOE Project Management Policy - draft 10. Visio-Project Governance diagram The PMO currently operates a singular-level project governance structure, closely aligned to the Project Governance diagram. *Anticipated Completion Date: 12/31/13* **Response as of September 21, 2013** The PMO discontinued the monthly Project Management Oversight Committee (PMOC) meetings in the first quarter of 2013 at the direction of the then Chief-of-Staff. *Anticipated Completion Date: Unknown*		

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		Response as of March 21, 2014 The PMO discontinued the monthly Project Management Oversight Committee (PMOC) meetings in the first quarter of 2013 at the direction of the then Chief-of-Staff. Draft Policies, procedures, and methodologies have been developed and are being used to guide the ongoing implementation of the project management function within OTIS. However, the PMOC committee and meetings have been canceled. The Director of Technology and Innovation and the CIO are currently drafting new Governance procedures to present to executive leadership. *Anticipated Completion Date: Unknown* **B. Application Development and Support** **Response as of January 30, 2012** The Information Systems Development Methodology has been developed and implemented for almost a year. Although the ISDM has not yet been formally adopted, it is in use and is guiding the development methodology used by the Department. A written procedure related to the security of software applications has been developed and added as an Addendum to the ISDM. A change management system, the Service Request System, has also been established. The ISDM will be examined to determine whether any revisions are necessary prior to presenting it for formal adoption (anticipated completion date of June 30, 2012). All of these are documents are written and are being used by relevant staff. Training for affected staff will be provided as needed (when changes are made or when additional staff need to use these policies, procedures, and methodologies).	*B. Application Development and Support* Complete	*B. Application Development and Support* Complete

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		Response as of March 21, 2013 The revised ISDM was completed in August 2012 and sent to executive management for approval. The Information Systems Development Methodology (ISDM) has been further revised to expound upon the processes and procedures of Application and Development projects. Each module of the ISDM has been reviewed to declare and define terminology and ensure consistent terminology throughout the documentation. A Business Analysts was hired to assist the developers with adhering to the ISDM when new projects are requested and developed. In addition, the Business Analyst is to identify and update missing standards and procedures in the ISDM methodology. The ISDM was approved by David Stokes, CIO on March 14, 2013		
2. Effectiveness of project governance should continue to be improved. Governance processes were under development during the audit.	As project governance is critical to support the management of limited resources, the Department should continue on the path to further develop, strengthen, and formalize its governance structure and activities. This includes creating governance committee charters and policies to implement governance activities and empowering a strategy or steering committee to ensure adequate control over project decisions, directions, and performance to ensure project activities support the Department's strategic plan.	**Response as of January 30, 2012** See response to Finding 1. **Response as of March 21, 2013** See response to Finding 1. *Estimated Completion Date: 12/31/13* **Response as of September 21, 2013** See response to Finding 1. *Estimated Completion Date: Unknown* **Response as of March 21, 2014** See response to Finding 1. *Estimated Completion Date: Unknown*	**There has been no change since the March 21, 2014 response.**	Unknown

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3. The Department is not following a formal documented project management methodology. Important planning steps and related deliverables of selected ongoing projects were not evidenced.	The Department should develop a formal project management methodology for managing projects. A one-size-fits-all methodology is not likely to work given the different types of projects and management styles involved. The methodology would likely include templates that can guide project teams in obtaining an appropriate level of documentation, while streamlining preparation time and effort involved.	**Response as of January 30, 2012** See response to Finding 1. **Response as of March 21, 2013** See response to Finding 1. *Estimated Completion Date: 12/31/13* **Response as of September 21, 2013** See response to Finding 1. *Estimated Completion Date: Unknown* **Response as of March 21, 2014** See response to Finding 1. *Estimated Completion Date: Unknown*	**There has been no change since the March 21, 2014 response.**	Unknown

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4. Documentation of ISDM deliverable activities for application support projects should be improved. We noted incomplete or insufficient documentation for: • Risk analysis • System architecture • Business requirements definition • Data requirements • Programming specifications • Security plan and design • Compliance with ADA • System test plan and results • User acceptance test plan	The Department should ensure that application support projects be performed in accordance with requirements of the Department's ISDM. Staff performing deliverable tasks should be sufficiently trained on use of the development methodology and effectively supervised to ensure quality. Opportunities to streamline the documentation of ISDM deliverables could potentially be achieved by expanding the use of templates.	**Response as of January 30, 2012** As noted above, the ISDM is being implemented throughout the Department; however, there are varying levels of implementation among staff based on the type of system being worked on. The Office of Application Development and Support (OAS) will continue to supervise and monitor the levels of implementation of the ISDM, specifically the documentation of ISDM deliverables. Additional training will be provided as needed and as indicated by the results of internal monitoring. Training will include guidance and best practices related to the use of templates for documentation of deliverables. OAS will also update the ISDM to address deliverable activities documentation in the areas mentioned in the report (risk analysis, system architecture, business requirements definition, data requirements, programming specifications, security plan and design, compliance with Americans with Disability Act, system test plan and results, and user acceptance test plan). **Response as of March 21, 2013** Completed in August, 2012. The Department has improved documentation of the ISDM deliverable activities for application support projects. The Department has addressed this finding and implemented the recommendations as outlined below. Application Development and Support has revised the ISDM to include missing templates noted in the Finding, as well as implementing new standards and policies. The implementation and requirement of a Project Charter and supporting templates has greatly facilitated the implementation of ISDM requirements, and streamlining the documentation of ISDM deliverables. The ISDM was approved by David Stokes, CIO on March 14, 2013.	Complete	Complete

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5. Segregation of duties should be strengthened. Certain programmer employees in the Department's internal applications support section are allowed to implement development tasks (coded software) into the production environment.	Existing security administration and application programming functions should be reviewed. Effective segregation of duties should be implemented where practicable. Programmers should not have access to the production environment. Where an appropriate segregation of duties is not possible, careful monitoring of the activities of affected individuals should be performed. The approach to separation of duties should be defined in the Department's security policies.	**Response as of January 30, 2012** The Department has made every effort to segregate duties; however, in a small number of instances, select senior staff have been given the authority to perform functions in multiple areas. OAS carefully monitors updates to code and databases to ensure the integrity of the data and to prevent any breach of security. As noted earlier, the Department has established the Services Request system process and the change management process, specifically with respect to moving code into production. Use of this system by all staff, and most specifically staff who perform functions in multiple areas, will ensure that any programmer is not the same person who updates the production environment. These enhancements to the existing procedures, along with constant internal monitoring, will strengthen the segregation of duties to compensate for the need for staff to handle multiple functions in certain situations. These procedures will also be updated in the Department's security policies as needed. **Response as of March 21, 2013** Segregation of duties has been strengthened. The Department has implemented the recommendations as outlined below. The Application Development section has created a Production Control team which consists of members from each section in the Office of Application Support. This team moves tested code, Web pages, and Database Stored Procedures for the developers into production. A document template was created "Move-to-Production" that must be completed and signed off by the mangers of the team to ensure the developer is not the same person who is moving the code into production. This process is also implemented for database queries.	Complete	Complete