

December 15, 2006

The Honorable Christopher Cox
Chairman
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

Dear Chairman Cox:

I am pleased to transmit summaries of the Public Company Accounting Oversight Board's most recent performance reviews, conducted by the Board's Office of Internal Oversight and Performance Assurance (IOPA). The Board formed IOPA to provide assurance to the Board, the Securities and Exchange Commission, and other interested parties that the PCAOB is achieving the objectives of Title I of the Sarbanes-Oxley Act in an effective manner. IOPA conducts its reviews in conformance with Government Auditing Standards issued by the Comptroller General of the United States.

The reviews discuss three aspects of the Board's information technology activities: investment review; document management; and enterprise architecture. In each case, IOPA's recommendations are based, in part, on industry and government best practices.

As part of the PCAOB's strategic planning process, the Board plans to ensure that future information technology investments are aligned with its strategic goals and objectives, and provide secure, reliable and cost-effective support for our operations. A recently-established information technology advisory group, whose members include the PCAOB's senior leadership, will assist the Board in this endeavor by recommending governance policies, processes, and strategies that are consistent with best practice for information technology and appropriately scaled to the PCAOB's business needs.

PCAOB

Public Company Accounting Oversight Board

The Board intends to publish the attached summaries of IOPA's reviews on the PCAOB's Web site on or about December 19, 2006. Please contact me or the Director of IOPA, Peter Schleck (202-207-9115), if you have any questions about the reviews.

Sincerely,



Mark W. Olson
Chairman

Enclosures

cc: The Honorable Paul S. Atkins
The Honorable Roel C. Campos
The Honorable Annette L. Nazareth
The Honorable Kathleen L. Casey

PERFORMANCE REVIEW

THE PUBLIC COMPANY ACCOUNTING OVERSIGHT BOARD'S **DOCUMENT MANAGEMENT** **(IOPA-2006-005)**

INTERNAL OVERSIGHT AND PERFORMANCE ASSURANCE
December 12, 2006

Objective

Consistent with its 2006 review plan, Internal Oversight and Performance Assurance (IOPA) conducted a risk assessment of the Public Company Accounting Oversight Board's (PCAOB, or the Board) information technology (IT) activities. IOPA presented the results of the risk assessment to the Board in June 2006, and proposed at that time to conduct follow-on reviews of the PCAOB's investment review committee, enterprise architecture project, and document management. The Board approved this proposal and IOPA subsequently met with the Chief Administrative Officer (CAO) and Chief Information Officer (CIO) to discuss the approach and methodology for conducting the reviews.

This report discusses the PCAOB's document management^{1/} and focuses on its efforts related to document management from an enterprise perspective as well as for its inspections work. The review objective was to determine whether the PCAOB has sufficiently defined its business and technology requirements for document management.

At the conclusion of our fieldwork, we shared our preliminary findings with the CAO and CIO. At that time, the CIO emphasized that our review covered three distinct topics: (1) The Inspection Document Management System; (2) the tool selection for that project, and (3) Enterprise Document Management System Project. The CIO asserted

^{1/} This is a public summary of the report. The full report, prepared in accordance with Government Auditing Standards, has been issued to the Board. The full report includes a detailed discussion of the review objective, scope, and methodology.

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that the first two topics exist independently from the third and would be the same whether or not the third existed. However, in IOPA's judgment, the close relationship of the three topics warrants, from a strategic standpoint, discussion of all three topics together. While our recommendations at the end of this report relate largely to the enterprise effort, decisions made and actions taken will influence both enterprise and inspections document management.

Background

A document management system is a computer program (or set of programs) used to track and store electronic documents and/or images of paper documents. In this context, "documents" refers to any piece, type, or format of business content. Document management systems commonly provide storage, versioning, metadata,^{2/} security, as well as indexing and retrieval capabilities. According to the Government Accountability Office (GAO),^{3/} the rapid evolution of IT makes managing and preserving electronic records especially complex and costly.

In 2003, a team of four contractor employees conducted a study of the IT needs of the PCAOB's Division of Registration and Inspections (Inspections) and Division of Enforcement and Investigations (Enforcement). This effort was referred to as ISES (Inspection Support and Enforcement Support). This study identified the need for a document management system to support these functions and compiled a short list of commercial, off-the-shelf (COTS) products that satisfied that need, with Documentum at the top of the list. According to the ISES study, the rough estimate for the cost of Documentum for 150 users was \$600,000 (\$500,000 for licenses and \$100,000 for customization and training). Documentum was selected as the document management solution in December 2003, based on its advanced security, scalability, functionality, and other features.

Initially, a special edition of Documentum was deployed to Inspections. This edition has been in use since November 2004 and has been updated and customized for subsequent inspection cycles. For the 2006 inspections cycle, it was being used to document work associated with inspections of the eight largest auditing firms. Inspections of small firms are still documented using paper.

^{2/} Metadata is data about data. For example, a library catalog is metadata because it describes publications.

^{3/} *Electronic Records: Management and Preservation Pose Challenges*, GAO-03-936T, July 2003.

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As documented in the *PCAOB Charter for Enterprise Document Management System*,^{4/} the strategic goal of this project was to deploy the enterprise version of Documentum -- Enterprise Document Management System (EDMS) -- to all business units. The EDMS project began with an initial release containing no customization in November 2004. This version was piloted to individuals selected by divisions and offices within the PCAOB (business units^{5/}). The selected individuals were referred to as document management leads or DMLs. DMLs were then solicited for their requirements over a period of several months. The initial release version was not rolled-out to the PCAOB as a whole. Subsequent to the pilot, plans shifted to use of a web-based version of Documentum. This new version was scheduled to be deployed to all of PCAOB by December 13, 2005, and all existing documents were to be migrated by March 31, 2006. A more recent project schedule indicated completion of the PCAOB roll-out by February 17, 2006. At the time of our review, the EDMS project had not been rolled out to all of the PCAOB and was considered "on hold."

Best Practices for Document Management

The high-level objectives that the PCAOB established for its central document repository were that it assure accurate classification and retention of PCAOB documents, and facilitate a structured repository easily accessed for end-user computing.

An industry expert (Gartner^{6/}) advocates several actions, including the following, to gain the maximum value out of document management efforts:

- Making business owners accountable for success;

^{4/} This document was marked draft and was dated September 2005. According to the CIO, this document has not been updated. It was written for presentation to the PCAOB's Investment Review Committee (IRC), which was not in existence at the beginning of this project. The IRC was formed in late 2004 as an internal control to ensure the strategic alignment of information technology projects.

^{5/} In this report, "business units" refers to the offices and divisions of the PCAOB. For example, the Office of Chief Auditor would be considered a business unit.

^{6/} Gartner is an independent contractor that delivers technology-related insight to thousands of organizations, including chief information officers and other senior IT executives in corporations and government agencies, as well as technology companies and the investment community.

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- Planning for the full life cycle of content;
- Seeking legal counsel to determine records retention requirements; and,
- Creating a steering committee with members from IT and the business.

Another industry expert (Forrester^{7/}) identified similar critical success factors for an effective Government records management program, including:

- Defining records management policies before implementing a records management system;
- Creating a dedicated multidisciplinary project team (including policy makers, records and information management (RIM) professionals, architecture group and/or key IT staff, the budget stakeholder, and the business process owners);
- Selecting appropriate technologies; and,
- Conducting awareness training for end users and administrators.

While the PCAOB is not a Government organization, it serves the public interest and has specific duties under the Sarbanes-Oxley Act (SOX) to keep information collected from audit firms and other sources confidential.

In addition, frameworks developed by the IT Governance Institute^{8/} and by GAO^{9/} stress the importance of ensuring that IT projects are tightly aligned with the organization's business needs. The Institute's framework specifically notes that alignment of IT with overall strategic objectives requires full and active involvement from many levels and activities within an enterprise.

^{7/} Forrester Research is an independent technology and market research company that provides advice about technology's impact on business and consumers.

^{8/} *Optimizing Value Creation from IT Investments*, 2005; *IT Alignment: Who is in Charge?*, 2005.

^{9/} *Information Technology Investment Management: A Framework for Assessing and Improving Process Maturity*, GAO-04-394G, March 2004.

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Results of Review

The PCAOB has not sufficiently defined its business and technology requirements for document management. Evaluation of options for document management began in 2003. However, as of September 2006, Documentum (the selected technology), was only being used in a limited capacity. This occurred, in part, because the PCAOB did not fully implement certain best practices for document management projects. As a result, the PCAOB has spent about \$3 million^{10/} on a document management system that is not fully utilized, and the benefits of a robust records and information management program are not being gained.

While much effort by the PCAOB's Office of Information Technology (OIT) has been put into documenting requirements for enterprise and inspections versions of a document management system, the majority of PCAOB employees are still not using the system, and the project lacks overall strategic direction. Some potential users of the system do not view the document management system as fulfilling their business needs.

A "vanilla" version^{11/} of EDMS is ready for deployment to all of PCAOB, but its roll-out is now on hold. The CAO stated that he stopped work on the roll-out in early 2006 based on feedback from Board members. Part of OIT is using EDMS, and the Office of Research and Analysis is interested in using it to create a research repository, which would contain internal and external research. Another office that inquired about using EDMS was told to wait.

Inspections is currently using a separate version of Documentum^{12/} for large firm inspections. It is not being used to document the inspection of small firms, nor is it anticipated that Documentum will be used for small firm inspections during the 2007 cycle. Inspections is not using Documentum for managing its other documents.

^{10/} \$1.6 million on EDMS, \$1.2 million on the Inspections version, and \$0.2 million on an associated infrastructure upgrade.

^{11/} A version with limited customization that is not specifically tailored to individual business unit needs.

^{12/} The Inspections version of Documentum is complemented by two other products—INSET and IRIS. INSET is used for setting up folders and granting access rights, and IRIS is used for status reporting and summarization of results.

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As of September 2006, the vast majority of PCAOB documents are not included in the EDMS. The existing schedule for roll-out to all of PCAOB has not been met, and initial cost estimates have been exceeded. The estimated cost to roll out the EDMS to all of PCAOB was \$1.2 million, but as of August 2006, \$1.6 million had been spent on this effort, and the roll-out to most business units had not begun.

The CIO stated that the EDMS is being refocused on retention and integration rather than a repository for all PCAOB documents. The CIO plans to brief the Chairman or the Board on the issue of document management and the basic need for searchable information.

In a consolidated written response addressing all three of IOPA's IT-related reports, the then-CAO and the CIO outlined a series of proposed steps which, if implemented, would be generally consistent with the intent of our recommendations.