



441 G St. N.W.
Washington, DC 20548

September 23, 2014

The Honorable Thomas R. Carper
Chairman
Committee on Homeland Security and Governmental Affairs
United States Senate

Federal Software Licenses: Most Agencies Have Reported Planned Actions to Address Our Prior Recommendations on Software License Management

Dear Mr. Chairman:

In May 2014 we reported¹ on federal agencies' management of software licenses and the potential for achieving significant savings government-wide. Specifically, we found that the Office of Management and Budget (OMB) and the vast majority of agencies reviewed did not have adequate policies for managing software licenses. We also reported that federal agencies were not adequately managing their software licenses because they generally did not follow leading practices in this area. Consequently, we could not accurately describe the most widely used software applications across the government, including the extent to which they were over and under purchased. Accordingly, we made over 100 recommendations aimed at addressing these weaknesses.

You asked us to describe OMB and federal agencies' current and planned actions to address our recommendations on software license management. To describe agencies' current or planned actions, we obtained and reviewed OMB and the 24 Chief Financial Officers Act agencies² reported statement of actions³ about their efforts to address the recommendations and also gathered relevant information from agencies' comments on our May 2014 report.

We conducted our work from July 2014 to September 2014 in accordance with all sections of GAO's Quality Assurance Framework that are relevant to our objective. The framework requires that we plan and perform the engagement to obtain sufficient and appropriate evidence to meet our stated objectives and to discuss any limitations in our work. We believe that the information

¹GAO, *Federal Software Licenses: Better Management Needed to Achieve Significant Savings Government-Wide*, GAO-14-413 (Washington, D.C.: May 22, 2014).

²The 24 major federal agencies covered by the Chief Financial Officers Act of 1990 are the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Homeland Security, Housing and Urban Development, the Interior, Justice, Labor, State, Transportation, the Treasury, and Veterans Affairs; Environmental Protection Agency; General Services Administration; National Aeronautics and Space Administration; National Science Foundation; Nuclear Regulatory Commission; Office of Personnel Management; Small Business Administration; Social Security Administration; and U.S. Agency for International Development.

³31 U.S.C. §720 requires federal agencies to submit to specified congressional committees a written statement of actions taken on our recommendations.

and data obtained, and the analysis conducted, provide a reasonable basis for any findings and conclusions in this product.

Background

The federal government plans to spend at least \$82 billion on information technology (IT) products and services in fiscal year 2014, such as purchases of software licenses.⁴ Federal agencies engage in thousands of licensing agreements annually. Effective management of software licenses can help organizations avoid purchasing too many licenses that result in unused software. In addition, effective management can help avoid purchasing too few licenses, which results in noncompliance with license terms and may cause the imposition of additional fees.

In our May 2014 report, we noted that while OMB had a policy on a broader IT management initiative that is intended to assist agencies in gathering information on their IT investments, including software licenses, it did not guide agencies in developing comprehensive license management policies. Of the 24 major federal agencies, 2 had comprehensive policies that included the establishment of clear roles and central oversight authority for managing enterprise software license agreements, among other things; 18 had policies but they were not comprehensive; and 4 had not developed any. The weaknesses in agencies' policies were due, in part, to the lack of a priority for establishing software license management practices and a lack of direction from OMB. We concluded that without an OMB directive and comprehensive policies, it will be difficult for the agencies to consistently and effectively manage software licenses.

Additionally, we reported that federal agencies were generally not following the leading practices we identified for managing their software licenses.⁵ These practices included: centralizing management; establishing a comprehensive inventory of licenses; regularly tracking and maintaining comprehensive inventories using automated discovery and inventory tools and metrics; analyzing the software license data to inform investment decisions and identify opportunities to reduce costs; and providing appropriate personnel with sufficient training on software license management. Table 1 lists the leading practices and the number of agencies that had fully, partially, or not implemented them.

⁴According to the *Information Technology Infrastructure Library's Guide to Software Asset Management*, software licenses are legal rights to use software in accordance with terms and conditions specified by the software copyright owner.

⁵We identified five leading practices for software license management by interviewing six recognized software license management experts from the private and federal sectors and then comparing and synthesizing the practices that were identified.

Table 1: Summary of Results for 24 Major Agencies' Implementation of Software Licenses Management Leading Practices

Leading practice	Fully implemented	Partially implemented	Not implemented
Centralized management	4	15	5
Established software license inventory	2	20	2
Tracking and maintaining inventory	0	20	4
Analyzing software license data	0	15	9
Providing sufficient training	0	5	19

Source: GAO analysis of agency data as reported in GAO-14-413.

The inadequate implementation of leading practices in software license management was partially due to weaknesses in agencies' policies. The result was an inability to analyze software license data to more cost-effectively buy and maintain software licenses, and ascertain the software applications most widely used across the federal government. Consequently, while some agencies were able to identify millions in savings for software through ad hoc processes, there was the potential for even greater savings and additional opportunities to reduce software license spending and duplication than what agencies had reported. Until OMB and the agencies focus on improving policies and processes, they will not have the data to manage software licenses and will likely continue to miss opportunities to reduce costs.

As such, we recommended that the Director of OMB issue a directive to the agencies on developing comprehensive software licensing policies comprised of the seven elements identified in that report.⁶ We also made 135 recommendations to the 24 agencies in our review to improve their policies and practices for managing software licenses including implementing the comprehensive policies and the leading practices identified in table 1.

In commenting on our report, OMB disagreed with our recommendation to issue a directive and of the 24 agencies that we made specific recommendations to, 11 agreed, 5 partially agreed, 2 neither agreed nor disagreed, and 6 had no comments. Table 2 summarizes the 24 agencies' responses to recommendations made in our May 2014 report.

⁶The seven elements that a comprehensive software license policy should specify are (1) identify clear roles, responsibilities, and central oversight authority within the department for managing enterprise software license agreements and commercial software licenses; (2) establish a comprehensive inventory (80 percent of software license spending and/or enterprise licenses in the department) by identifying and collecting information about software license agreements using automated discovery and inventory tools; (3) regularly track and maintain software licenses to assist the agency in implementing decisions throughout the software license management life cycle; (4) analyze software usage and other data to make cost-effective decisions; (5) provide training relevant to software license management; (6) establish goals and objectives of the software license management program; and (7) consider the software license management life-cycle phases (i.e., requisition, reception, deployment and maintenance, retirement, and disposal phases) to implement effective decision making.

Table 2: Summary of Agency Response to Recommendations

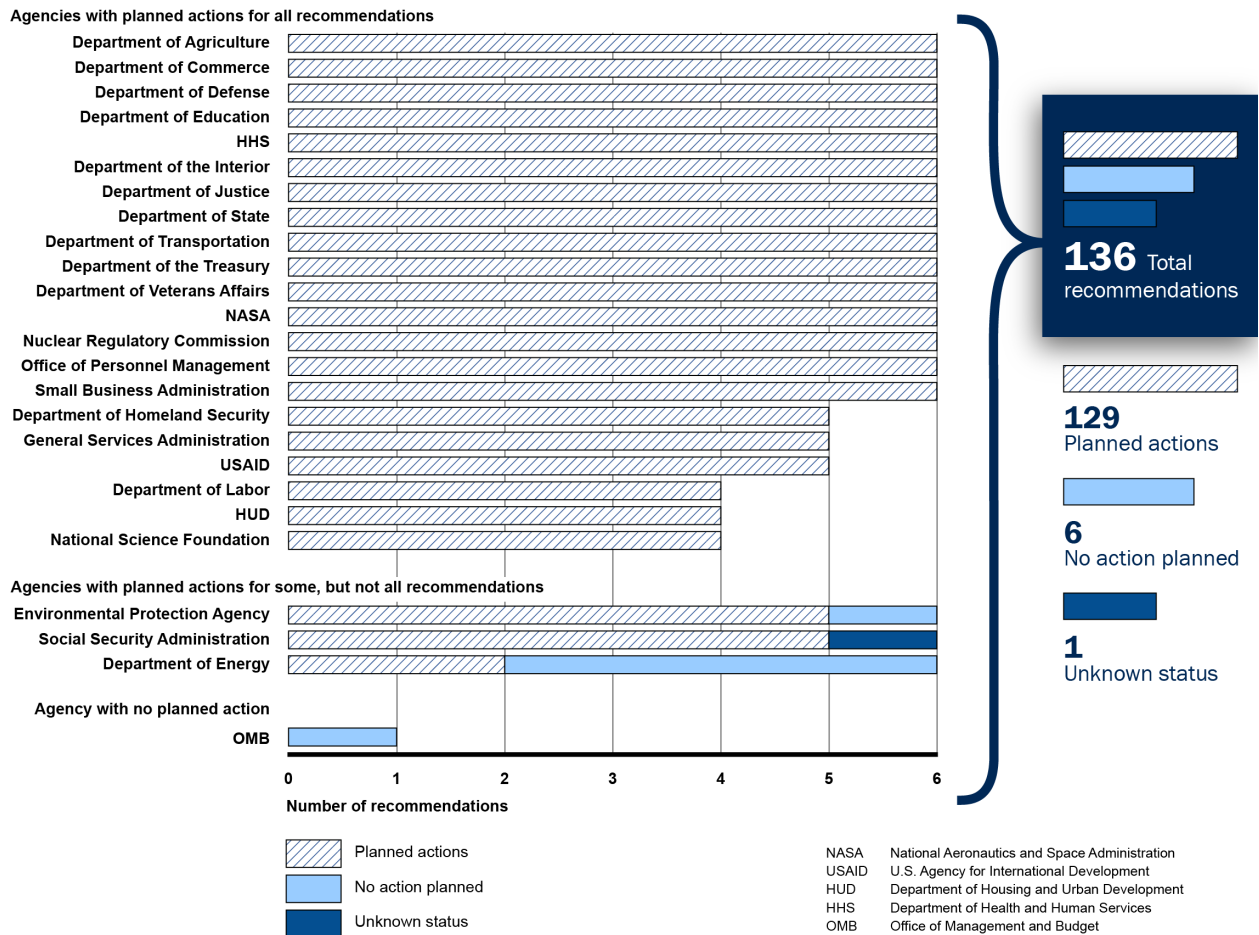
Recommendation concurrence	Agency
Agreed	Departments of Agriculture, Education, Homeland Security, Justice, State, Veterans Affairs; General Services Administration, Office of Personnel Management, Social Security Administration, Nuclear Regulatory Commission, U.S. Agency for International Development
Partially agreed	Departments of Commerce, Defense, the Interior; Environmental Protection Agency, National Aeronautics and Space Administration
Neither agreed nor disagreed	Departments of Energy, Health and Human Services
No comments	Departments of Housing and Urban Development, Labor, Transportation, the Treasury; National Science Foundation, and Small Business Administration

Source: GAO analysis of agency data as reported in GAO-14-413.

Most Agencies Have Reported Planned Actions to Address our Prior Recommendations on Software License Management

As of August 2014, the majority of agencies that have provided information reported that they plan to address most of the recommendations we made to them. Specifically, 21 agencies plan to fully address all recommendations. Three agencies have reported that they plan to address most recommendations, but not all, primarily, because they partially disagreed with the report's prior findings or did not provide information on their efforts to implement the recommendations made. Finally, OMB does not have plans yet to address the recommendation we made to it. Of the 136 recommendations made, agencies have planned actions for 129 recommendations, no actions planned for 6 and the status is unknown for 1. Figure 1 illustrates the information of agencies' reported planned actions to implement prior recommendations on managing software licenses.

Figure 1: Summary of Agencies' Reported Planned Actions on Prior Recommendations



Source: GAO analysis of agency reported data. | GAO-14-835R

As shown in the graphic, 21 of the 25 agencies' reported planned actions for all of the recommendations made. For example,

- The Department of Education stated that in response to the weakness we identified, the Office of the Chief Information Officer (CIO) developed a department-wide directive that establishes guidelines for software acquisition and management, and places central control for software license management within the Office of the CIO. The directive is in the final stages of review and is expected to be approved by September 2014.
- The General Services Administration stated that the CIO has established a vendor management office to improve its IT, including the establishment of policies and processes for management of all enterprise software licenses. The agency also reported it has developed a baseline inventory of all IT contracts based on fiscal year 2013 that is being updated and validated to reflect fiscal year 2014 IT contracts. The agency further stated that the asset tracking of all existing licenses will be implemented on a quarterly basis. Additionally, the enterprise license repository will be published and marketed across the agency to foster better reutilization.

- The Department of Justice stated that it plans to contact the agencies we rated as having comprehensive software management policies and having well-defined centralized software license management processes to assist the agency in implementing the leading practices we identified. By the second quarter of fiscal year 2015, the department plans to conduct a survey to identify additional software licenses that should be centrally managed across the department. Additionally, during fiscal year 2016, it plans to acquire, configure, and implement an automated software license management solution to include all enterprise-wide licenses. This solution is intended to also identify the top ten most widely used software licenses across the department.
- The Department of Veterans Affairs reported a comprehensive draft enterprise software license management policy is currently going through a review processes and as of July 2014, is on track to be finalized within 120 days. Also, the department stated that it is currently implementing a structured approach to economic evaluation and requirements validation for the majority of software enterprise license agreements.
- The National Science Foundation stated that by October 2015, it plans to (1) develop an agency-wide policy addressing the management of software licenses, (2) regularly track and maintain a comprehensive inventory of agency software licenses using automated tools and metrics, (3) analyze agency-wide software license data and identify opportunities to reduce costs and better inform investment decision-making, and (4) provide software license management training to appropriate agency personnel.
- The Small Business Administration stated that it will create and maintain a centralized document repository relating to purchases of software, including license agreements, cost, and expiration dates, among other things. Additionally, the agency stated it will implement an annual review of software that is uninstalled, unused, or redundant to reduce licensing costs and improve functionality across the enterprise.

Three of the 25 agencies reported mixed results on their efforts to address our recommendations. For example, the Environmental Protection Agency stated that it plans to begin assessing its existing automated tools, governance structures, and other federal agencies processes and policies in its efforts to begin developing a comprehensive software license management program. However, no additional actions are planned to provide software license management training to appropriate agency personnel.

Finally, OMB continues to disagree with our recommendation to issue a directive to help guide how agencies manage their software licenses. In June 2014, an official from OMB's Office of E-Government and Information Technology stated that OMB does not have plans to issue guidance and therefore has no plans yet to address this recommendation. As previously reported, until the agencies have sufficient direction from OMB, opportunities to systematically identify software license related cost savings across the federal government will likely continue to be missed.

Agency Comments and Our Evaluation

In e-mail comments on a draft of this report, an official from OMB's Office of General Counsel stated that OMB has not changed their position on our recommendation, but we believe the directive is needed, as previously discussed in the report. Additionally, to verify accuracy, we provided agency-specific information from a draft of this report to each of the 24 Chief Financial Officers Act agencies. Twenty of the 24 agencies responded via email that the information was accurate or provided additional information, which we incorporated, as appropriate. The other 4

agencies—Department of Agriculture, National Aeronautics and Space Administration, Office of Personnel Management, and U.S. Agency for International Development—did not respond to our request.

We are sending copies of this report to interested congressional committees. We will also send copies to the Secretaries of the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Homeland Security, Housing and Urban Development, the Interior, Labor, State, Transportation, the Treasury, and Veterans Affairs; the Attorney General; the Administrator of the Environmental Protection Agency; the Administrator of the General Services Administration; the Administrator of the National Aeronautics and Space Administration; the Director of the National Science Foundation; the Chairman of the Nuclear Regulatory Commission; the Director of the Office of Management and Budget; the Director of the Office of Personnel Management; the Administrator of the Small Business Administration; the Commissioner of the Social Security Administration; and the Administrator of the U.S. Agency for International Development; and other interested parties. In addition, this report will be available at no charge on the GAO web site at <http://www.gao.gov>.

If you or your staff has any questions about this report, please contact me at (202) 512-4456 or ChaC@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report were Eric Winter, Assistant Director, and Eric Costello, Rebecca Eyler, and Niti Tandon.

Sincerely yours,



Carol R. Cha
Director, Information Technology Acquisition Management Issues

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