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Audit of NARA's Software Asset
Management Process (23-AUD-03)

May 4, 2023





Inspector General

May 4, 2023

TO: Debra Steidel Wall
Acting Archivist of the United States

FROM: Dr. Brett M. Baker
Inspector General

SUBJECT: *Audit of NARA's Software Asset Management Process*
OIG Audit Report No. 23-AUD-03

Attached is the Office of Inspector General's final report of our *Audit of NARA's Software Asset Management Process*. The report contains three recommendations intended to improve management oversight and accountability over the software license management process. Agency staff indicated they had no comments for inclusion in this report.

Please provide planned corrective actions and expected dates to complete the actions for each of the recommendations within 30 days of the date of this report. As with all OIG products, we determine what information is publicly posted on our website from the attached report. Consistent with our responsibility under the *Inspector General Act of 1978, as amended*, we may provide copies of our report to congressional committees with oversight responsibility over NARA.

We appreciate the cooperation and assistance NARA extended to us during this audit. Please contact me or Jewel Butler, Assistant Inspector General for Audits, with any questions.

cc:

Micah Cheatham, Chief of Management and Administration
Sheena Burrell, Chief Information Officer
Damon Nevils, Acting Chief Acquisitions Officer
Kimberly Boykin, Chief of Staff, Information Services
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Kimberly Nikraves, Senior Program Auditor
United States Senate Homeland Security and Governmental Affairs Committee
United States House of Representatives Committee on Oversight and Reform

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Executive Summary

Audit of NARA's Software Asset Management Process

NARA OIG Audit Report No. 23-AUD-03

May 4, 2023

Why Did We Conduct This Audit?

Effective software license management allows organizations to maintain accurate software inventories to improve accountability, security, and compliance.

The National Archives and Records Administration's (NARA) Office of Inspector General (OIG) conducted this audit to determine if governance structures were in place to provide adequate direction and establish accountability for procuring, tracking, and monitoring software assets, in order to minimize shortage, waste, and security risks.

What Did We Recommend?

We made three recommendations to strengthen management oversight and accountability over the software license management process.

What Did We Find?

Information Services did not adequately manage the software license process. Specifically, NARA's Software License Management Process did not always adhere to guidance. Information Services did not (1) establish an automated and comprehensive inventory for tracking software licenses, (2) always maintain planning documentation to support the procurement of software licenses, (3) develop comprehensive software policies to identify clear roles, responsibilities, and central oversight of software licenses, and (4) formally appoint a software manager.

These conditions exist because Information Services did not have adequate oversight and accountability over its software license management process. The Making Electronic Government Accountable by Yielding Tangible Efficiencies Act of 2016 (MEGABYTE Act of 2016) states the Office of Management and Budget (OMB) shall issue a directive requiring agencies (including NARA) to take various actions to manage software licenses. OMB Memorandum M-16-12 directs covered agencies to manage their software licenses. While NARA is not a covered agency under OMB Memorandum M-16-12, complying with OMB guidance is a best practice to improve software license management.

Without adequate oversight and accountability, NARA cannot make and implement cost-effective decisions, including ensuring only necessary software licenses are purchased.

Summary of Recommendations

Finding: Software License Management Process Needs Improvement

Number	Recommendation	Responsible Office
1	Establish an automated and comprehensive inventory for managing and tracking software licenses.	Information Services
2	Develop and implement a comprehensive software licensing policy that includes a methodology for analyzing and maintaining software usage data to determine the software license needs of the agency.	Information Services
3	Identify and formally appoint a software manager.	Information Services

Background

Software licenses are legal agreements between suppliers and customers about the use and distribution of software. Effective software license management allows organizations to maintain accurate software inventories to improve accountability, security, and compliance. In 2015, the Federal Information Technology Acquisition Reform Act (FITARA) and the Office of Management and Budget (OMB) category management initiative¹ addressed a number of information technology (IT) management challenges by directing agencies to buy and manage common commodities – commercial and commercial-off-the-shelf (COTS) software – in a more coordinated way. FITARA provided the Chief Information Officers of covered agencies new authorities and responsibilities to improve their software management practices. Although, the National Archives and Records Administration (NARA) is not required to follow FITARA based on the definition of a covered agency,² the Archivist of the United States elected to follow FITARA and delegated³ the same authorities and responsibilities to NARA’s Chief Information Officer (CIO). The CIO is responsible for carrying out the provisions of FITARA, the Federal Information Security Modernization Act (FISMA) of 2014, the Information Technology Management Reform Act of 1996, and the E-Government Act of 2002.

OMB issued Memorandum M-16-12 (OMB M-16-12), *Category Management Policy 16-1: Improving the Acquisition and Management of Common Information Technology: Software Licensing* in June 2016 to covered agencies to address challenges that agencies have in software licensing including but not limited to purchasing and managing software licenses, as well as ensuring the accuracy of software inventories. Although NARA is not a covered agency, complying with OMB M-16-12 guidance is a best practice to improve software license management. In July 2016, the Making Electronic Government Accountable by Yielding Tangible Efficiencies Act of 2016 (MEGABYTE Act of 2016) stated the Director of OMB shall issue a directive to require the CIO of each executive agency⁴ to develop a comprehensive software licensing policy that includes identifying clear roles and responsibilities and central oversight authority within the executive agency for managing software licenses.

Within Information Services at NARA, the Chief Technology Officer (CTO) is responsible for:

¹ The category management initiative resulted in OMB M-16-12 as well as Memorandum M-16-02, *Category Management Policy 15-1*.

² Agencies covered by FITARA and OMB M-16-12 are those agencies listed in Title 31, Section 901 (b)(1) and (b)(2) of the United States Code.

³ NARA 101, NARA Organization and Delegation of Authority, Part 10 Information Services.

⁴ The MEGABYTE Act of 2016 references Title 5, Section 105 of the United States Code to define an “Executive agency” as an Executive department, a Government corporation, and an independent establishment. Title 44, Section 2102 of the United States Code goes on to define NARA as an independent establishment.

- providing guidance and technical leadership pertaining to enterprise architecture;
- planning, design, and configuration management of all agency-wide hardware, software, and database management systems;
- emerging technologies;
- directing planning, architecture, design, and configuration management of all agency-wide hardware, software, database management systems, telecommunications, data, Local Area Networks/Wide Area Networks, Cloud-based networks and systems, and related equipment; and
- approving systems development methodologies and configuration changes to NARA's technology infrastructure.

The End-User Services Support Branch provides IT operations functions agency-wide to offices for the organization's standard hardware, software, and voice/data network solutions. Specifically, the End-User Services Support Branch reviews and approves hardware and software requests and requests for new technology to be used on NARANet. They manage Enterprise Licensing Agreements used on NARA devices and coordinate with IT Helpdesk to have them install the software. They also participate on the Technical Reference Model Governance Board (TRMGB), which supports the effective evaluation and inclusion of IT components to the NARA Technology Repository, minimizing redundant technology and aligning technology acquisitions with NARA's Information Resources Management (IRM) Plan.

Enterprise Licenses

In Fiscal Year (FY) 2021, NARA identified they had a total of three end-user enterprise software⁵ contracts.⁶ In FY 2019, FY 2020, and FY 2021, respectively, NARA spent \$2,322,474, \$2,361,737, and \$2,570,627 on those three end-user enterprise software contracts totaling approximately \$7.3 million. Of that total amount, NARA spent nearly \$5.5 million (75 percent) on its Product C licenses. (See Table 1 for Enterprise Contract Costs by FY).

⁵ Enterprise software is any software that is used to support a large organization.

⁶ The software product names were omitted because of their sensitive nature.

Table 1: End-User Enterprise Contract Costs FY 2019 – FY 2021

End-User Enterprise Contract	FY 2019	FY 2020	FY 2021	Total Contract Costs
Product A	\$499,503	\$506,880	\$562,588	\$1,568,972
Product B ⁷	55,324	61,557	102,806	219,686
Product C ⁸	1,767,647	1,793,300	1,905,233	5,466,180
Total	\$2,322,474	\$2,361,737	\$2,570,627	\$7,254,838

Prior Reports

In 2019, NARA identified an Antideficiency Act (ADA) violation related to Product C's contract discussed in this report where they incurred obligations in excess of available appropriations. While there were no prior audits related to the software asset management process, the ADA violation was the subject of a previous audit⁹ and a review.¹⁰ A posting error that led to the violation was caused by an interface issue between two systems that was known to the Administrative Resource Center (ARC).¹¹ In addition, NARA's monitoring controls over ARC's processes were inadequate and did not provide timely feedback to ensure errors were adequately and appropriately solved by NARA and the ARC. Eight recommendations were made as a result of the audit and review. At the conclusion of this audit, one of the eight recommendations remained open.¹²

⁷ Includes costs for server protection as well as desktop/laptop.

⁸ Includes costs for support hours.

⁹ Audit of NARA's FY 2019 Financial Statements (OIG Report 20-AUD-08, April 22, 2020).

¹⁰ [REDACTED]

¹¹ ARC is part of the Department of the Treasury's Bureau of the Fiscal Service, and it provides a full range of financial management services to NARA under an interagency agreement. Services with NARA include financial management system services, procurement system services, and a full range of accounting services.

¹² The recommendations were reclassified from Significant Deficiency in FY 2020 to Management Letter Comment in FY 2021.

Audit Results

NARA's software license management process needs improvement. NARA did not have an effective governance structure in place to provide adequate direction and establish accountability for procuring, tracking, and monitoring software assets. NARA also did not adhere¹³ to the intent of the MEGABYTE Act of 2016 and OMB M-16-12. Without effective controls, NARA cannot ensure risk to software assets are mitigated, and the status of software assets are current, accurate, and comprehensive enough to assist the agency in implementing business decisions throughout the software license management life-cycle.

Finding: Software License Management Process Needs Improvement

Information Services did not adequately manage the software license process. Specifically, NARA's Software License Management Process did not always adhere to guidance. Information Services did not:

- (1) establish an automated and comprehensive inventory for tracking software licenses,
- (2) always maintain planning documentation to support the procurement of software licenses,
- (3) develop comprehensive software policies to identify clear roles, responsibilities, and central oversight of software licenses, and
- (4) formally appoint a software manager.

These conditions exist because Information Services did not have adequate oversight and accountability over its software license management process. The MEGABYTE Act of 2016 and OMB M-16-12 direct agencies to manage their software licenses. While NARA is not a covered agency under OMB Memorandum M-16-12, complying with OMB guidance is a best practice to improve software license management. Without adequate oversight and accountability, NARA cannot make and implement cost-effective decisions, including ensuring only necessary software licenses are purchased.

Management and Tracking of Software License Inventory Needs Improvement

Information Services did not establish a comprehensive, automated inventory of software licenses as required by the MEGABYTE Act of 2016 to effectively and efficiently account for licenses and software license spending. The MEGABYTE Act of 2016 requires OMB to issue a directive for agencies to establish a comprehensive inventory, including 80 percent of software license spending and enterprise licenses, by identifying and collecting information about software license agreements using automated discovery and inventory tools. Additionally, OMB M-16-12, provides for covered agencies to automate and track agency-wide software license

¹³ For the elements included in the scope of our audit.

inventory. The guidance states agencies should use products that automate IT hardware and software asset discovery, IT asset inventory tracking, software inventory normalization, and software license optimization. While NARA is not a covered agency under OMB Memorandum M-16-12, complying with OMB guidance is a best practice to improve software license management.

Although Information Services used several different methods to identify and track approved and installed software on NARA devices, such as the software request form, the software purchase request form, network scan (an automated tool that only indicates the number instances of installed software on the network), and the Technical Reference Model Repository spreadsheet, they did not have a comprehensive way to track the number of licenses used, deployed, and purchased by NARA offices. Therefore, NARA could not track the number of licenses purchased versus the number of licenses used to ensure the amount purchased is what was needed. For example, the OIG analyzed the Technical Reference Model Repository spreadsheet and estimated over 620 software products were approved for use on the network. Additionally, in 2021 Information Services provided the OIG with a network scan report that identified a total of 505 software products installed on NARA's network. The network scan report identified software installed on the network and the number of devices that have the software, but these quantities do not correlate to the number of licenses used or purchased by NARA offices. According to NARA, its software license inventory process is prone to errors and takes longer to identify inventory because it is manual. Information Services acknowledges one of the biggest risks to NARA's software asset management process is accountability for inventory.

In order to determine if Information Services adequately managed the software license process, we obtained complete contract files and supporting documentation relative to the number of licenses purchased and the number of licenses used for three of NARA's end-user enterprise software contracts. After our analysis we found the following related to those three contracts.

Product A Licenses

In procuring Product A licenses, Information Services stated they analyzed a Zero Usage report which identified a snapshot of the number of Product A licenses that had not been used as of the date the Zero Usage report was created. Information Services then used the information from the Zero Usage report to determine and adjust how many Product A licenses to purchase. Other than the zero-use report, no other analysis was conducted.

Product B Licenses

For Product B licenses, Information Services stated they used a report from NARA's IT Security platform that identified the number of endpoint client Product B installs per NARA device and they based their purchasing decision on the number of devices in NARA's environment at the time. For example, if NARA had five thousand devices in the environment, Information Services would plan to purchase five thousand Product B licenses. No other analysis was conducted.

Information Services confirmed they did not maintain historical planning documentation from prior years to support the number of Product A and Product B licenses they reportedly used. As a result, the OIG was not able to confirm Information Services used the number of licenses purchased for Product A and Product B contracts between FY 2019 and FY 2021, or if they adequately planned for these software contracts. Although, Information Services did not maintain historical usage data for Product A and Product B to support usage analysis from previous years compared to what was purchased, as a result of this audit, they began maintaining the planning documentation for determining the agency's software license needs prior to procuring the most recent software contracts.

Product C Licenses

For the Product C licenses, Information Services provided contract files, along with supporting documentation for the number of licenses purchased and used. We found Information Services did not conduct an analysis to determine the quantity of licenses needed for the base year of the contract or for future option years. Instead, they procured the quantity of licenses and hours solely based on the previous year's contract quantities. Also, the agency moved forward with purchasing these items in 2019, although its IT environment required infrastructure updates that could potentially reduce the future need for various licenses such as configuring Product C software before planning to purchase software licenses,¹⁴ the agency moved forward with purchasing these items in 2019.

In April 2020, Information Services indicated to the OIG¹⁵ that a full schedule for the implementation of Product C software had not been developed. However, they provided a high-level implementation timeline of approximately 17 weeks, which was contingent upon completion of certain requirements from customer stakeholders. Prior to this audit, in September 2020,¹⁶ Information Services shared a draft project plan¹⁷ indicating NARA did not plan to deploy Product C software until November 2020, which would have been four months into option year 1 of the Product C contract. Although the licenses were originally procured in July 2019, Information Services did not begin the deployment necessary for their use until June 2021. Deployment was scheduled to be completed in November 2021, which was four months into option year 2.

Information Services also did not use all the licenses and contracted support hours for the various Product C products procured in the base year and option year 1 of the contract due to delays in implementing the infrastructure updates. For example, in July 2019, NARA purchased 4,949

¹⁴ While the infrastructure updates were the main cause of not implementing the Product C products during the first two years of the contract, Information Services reported the delays were exacerbated by the COVID-19 public health emergency.

¹⁵ [REDACTED]

¹⁶ [REDACTED]

¹⁷ Project Schedule v1.12.

Product C software licenses in the base year (see Product 1 in Table 2) of the contract, but only used 18 of the licenses. For option year 1 (see Product 1 in Table 3), NARA purchased the same quantity of Product C software licenses, 4,949, but only used 21 of the licenses.

The MEGABYTE Act of 2016 directed OMB to require CIOs to analyze software usage and other data to make cost-effective decisions. Information Services stated no analysis was conducted to determine the actual hours and quantities needed for the Product C contract because of the limited amount of time available to execute the contract. Had Information Services analyzed the current Product C needs based on the timing of implementing the infrastructure updates and hours and quantities needed for the products, fewer licenses could have been purchased. Additionally, under the terms of the contract, Information Services could have purchased more licenses than originally procured through the contract's true-up process¹⁸ or a contract modification, but they could not reduce the number of licenses already purchased to address a reduced need.

Because Information Services did not adequately manage the software license process, they did not properly plan for the contract of Product C software. As a result, NARA spent \$2,663,966 in funds that could have been put to better use over the first two years of Product C's contract. See Table 2 and Table 3 below for a comparison of the quantity purchased versus quantity used for Product C products in the contract.

¹⁸ The contract's true-up process was available for up to \$150,000. This process allows customers to adjust their current license quantity to account for changes to the contract that occurred over the course of the year.

Table 2: Product C Contract – Various Product Licenses/Hours Purchased vs. Used

Base Year: July 1, 2019 – June 30, 2020

Product	Unit or Hour Cost¹⁹	Quantity Purchased (units or hours)¹⁹	Cost Paid²⁰	Quantity Used (units or hours)²¹	Cost of Quantity Used²⁰	Funds Put to Better Use²⁰
	A	B	A*B = C	D	A*D = E	C-E=F
Product 1	\$205.92	4,949	\$ 1,019,098	18.00	\$ 3,707	\$ 1,015,392
Product 2	55.11	4,949	272,739	2,286.00	125,981	146,758
Product 3	18.02	4,949	89,181	18.00	324	88,857
Product 4	262.55	304	79,815	0.00	0	79,815
Product 5	564.53	80	45,162	16.00	9,032	36,130
Products 6 – 16	Various	Various	45,256	Various	1,597	43,659
Product 17	285.00	400	114,000	374.00 ²²	106,590	7,410
Product 18	247.00	275	67,925	275.00 ²²	67,925	0
Product 19	76.60	450	34,470	450.00	34,470	0
		Totals	\$1,767,647		\$349,627	\$1,418,020

Source: Information Services and Product C contract

¹⁹ Retrieved from contract. All footnotes applicable to this table are applicable to table 3.

²⁰ OIG calculated.

²¹ Information Services provided the number of units or hours used for the base year and option year 1.

²² Quantities based on hours.

Table 3: Product C Contract – Various Product Licenses/Hours Purchased vs. Used

Option Year 1: July 1, 2020 – June 30, 2021

Product	Unit or Hour Cost	Quantity Purchased (units or hours)	Estimated Cost	Quantity Used (units or hours)	Cost of Quantity Used	Funds Put to Better Use
	A	B	A*B=C	D	A*D = E	C-E=F
Product 1	\$209.09	4,949	\$ 1,034,786	21.00	\$ 4,391	\$ 1,030,396
Product 2	55.95	4,949	276,897	4,986.00	278,967	-2,070
Product 3	18.30	4,949	90,567	21.00	384	90,182
Product 4	266.59	304	81,043	21.00	5,598	75,445
Product 5	573.21	80	45,857	16.00	9,171	36,685
Products 6 - 16	Various	Various	47,229	Various	13,099	34,130
Product 17	285.00	400	114,000	472.50	134,663	-20,663
Product 18	247.00	275	67,925	267.55	66,085	1,840
Product 19	77.77	450	34,997	450.00	34,997	0
		Totals	\$ 1,793,300		\$547,354	\$1,245,946

Source: Information Services and Product C contract

Total Funds Put to Better Use: \$2,663,966²³

Although, Information Services has tools to identify installed software on NARA's network it is not enough to adequately manage and track software licenses or meet the intent of the MEGABYTE Act of 2016 and needs improving.

²³ The approximate amount of funds put to better use based on the unit cost rounded to the nearest whole dollar.

Comprehensive Software Licensing Policy Did Not Exist

Information Services did not develop a comprehensive software licensing policy. Instead, Information Services has various documents related to software licenses, including the following:

- TRMGB Standard Operating Procedures (SOP) – documents procedures for approving software.
- How to Request IT Services – provides key roles and guidance on how to request IT Services, including software.
- How-To-Series: IT Related Purchase Requests (PRs) – describes the process of how NARA staff make IT-related software (SW) Purchase Request (PR), how the request is classified as “standard” or “non-standard,” and how the request is subsequently processed for potential fulfillment.
- Product A License Reconciliation SOP – documents procedures for reclaiming unused Product A licenses.
- Incident Response SOP’s – describes the process NARA IT Security would take to resolve security incidents on the network.

None of these documents meet the intent of the MEGABYTE Act of 2016, which discusses requirements for OMB’s directive for agencies to develop a comprehensive software licensing policy, which shall:

- identify clear roles, responsibilities, and central oversight authority for managing enterprise software license agreements and commercial software licenses.
- require the CIO to:
 - establish a comprehensive inventory (80 percent of software license spending and enterprise licenses in the department) by identifying and collecting information about software license agreements using automated discovery and inventory tools;
 - regularly track and maintain software licenses to assist the agency in implementing decisions throughout the software license management life-cycle;
 - analyze software usage and other data to make cost-effective decisions;
 - provide training relevant to software license management;
 - establish goals and objectives of the software license management program; and
 - consider the software license management life-cycle phases (i.e., requisition, reception, deployment and maintenance, retirement, and disposal phases) to implement effective decision making and incorporate existing standards, processes, and metrics.

Software Manager Not Formally Appointed

NARA did not formally appoint a software manager. While Information Services reported the End-User Services Branch Chief as their software manager to OMB,²⁴ we found no appointment letter or designation in NARA 101, NARA Organization and Delegation of Authority that formally assigned the role of software manager. Information Services has developed an approved list of software through the TRMGB, which is led by the CTO or designee. However, this role is not performed by the named software manager reported to OMB.

OMB M-16-12 requires agencies to appoint a software manager who manages through policy and procedure all agency-wide commercial and COTS software agreements and licenses. OMB M-16-12 also states further specific roles and responsibilities of the software manager. While NARA is not a covered agency under OMB Memorandum M-16-12, complying with OMB guidance is a best practice to improve software license management.

Recommendations

We recommend the Chief Information Officer:

Recommendation 1: Establish an automated and comprehensive inventory for managing and tracking software licenses.

Recommendation 2: Develop and implement a comprehensive software licensing policy that includes a methodology for analyzing and maintaining software usage data to determine the software license needs of the agency.

Recommendation 3: Identify and formally appoint a software manager.

²⁴ OMB's E-Gov Integrated Data Collection FY 2021.

Appendix A – Summary of Monetary Results

Finding No.	Recommendation	Description	Amount	Category	Agency Response	OIG Response
1	1	Information Services did not analyze software usage or have a methodology to identify how many software licenses were needed at contract renewal for NARA’s productivity suite.	\$2,663,966	Funds Put to Better Use		

Appendix B – Objective, Scope, Methodology

Objective

The objective of the audit was to determine if governance structures were in place to provide adequate direction and establish accountability for procuring, tracking, and monitoring software assets, in order to minimize shortage, waste, and security risks.

Scope and Methodology

To accomplish our audit objective, we performed audit procedures at Archives II in College Park, Maryland and from the auditors' approved COVID-19 public health emergency telework location from August 2021 to January 2023. Our audit covered the enterprise-wide software license inventory process in place in FY 2021.

Specifically, we performed the following:

- Reviewed applicable laws, regulations, and NARA directives related to software asset management including FITARA, the MEGABYTE Act of 2016, OMB M-16-12, NARA 101, and NARA Directive 802, *Use and Monitoring of NARA Office and IT Equipment and Resources*.
- Conducted interviews with individuals from Information Services, including the CIO, Deputy CIO, and the chair of the Technical Reference Model Governance Board, to gain an understanding of NARA's software asset management process.
- Assessed internal controls to determine if the controls were sufficient to ensure NARA can effectively manage and oversee the software asset management process.
- Reviewed the software license inventory and documentary evidence to determine if NARA developed a comprehensive software policy, appointed a software manager, established a comprehensive and centralized inventory, regularly tracked, and maintained software licenses, and controls were in place to detect and prevent the installation of unauthorized software.
- Focused on the end-user enterprise software contracts issued by NARA in order to determine if these contracts were properly planned for and deployed. We judgmentally selected three end-user software-related contracts.²⁵ Information Services identified 24 end-user, security, and network contracts as NARA's universe. In order to evaluate the extent of the software license management issues identified in the contracts selected, we

²⁵ The Product A and Product B contracts were renewal contracts and did not require implementation, whereas the Product C contract required implementation of the licenses.

also reviewed NARA's planning for the procurement (which took place in FY 2019 and FY 2020) and execution.

This performance audit was conducted in accordance with generally accepted government auditing standards. Those standards require 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 the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. In planning and performing our audit, we identified the following control components and underlying principles as significant to the audit objective:

- Control Activities – Design Control Activities and Implement Control Activities
- Monitoring – Perform Monitoring Activities.

We assessed the design and implementation of these internal controls and identified deficiencies that we believe could affect NARA's ability to ensure accurate software inventories, improve accountability, and realize cost savings. The internal control deficiencies we found are discussed in the Audit Results section of this report. However, because our review was limited to aspects of these internal control components and underlying principles, it may not have disclosed all internal control deficiencies that may have existed at the time of this audit.

Andrew Clements, (Lead) Senior IT Auditor; Kimberly Nikraves, Senior Program Auditor; and William Brown, (Independent Referencer) Senior Program Auditor made key contributions to this report.

Appendix C – Acronyms

Acronym	Definition
ADA	Antideficiency Act
ARC	Administrative Resource Center
CAO	Chief Acquisition Officer
CFO	Chief Financial Officer
CIO	Chief Information Officer
COTS	Commercial Off the Shelf
CTO	Chief Technology Officer
GAO	Government Accountability Office
FISMA	Federal Information Security Modernization Act
FITARA	Federal Information Technology Acquisition Reform Act
FY	Fiscal Year
IT	Information Technology
MEGABYTE Act of 2016	Making Electronic Government Accountable By Yielding Tangible Efficiencies Act of 2016
NARA	National Archives and Records Administration
OIG	Office of Inspector General
OMB	Office of Management and Budget
TRMGB	Technical Reference Model Governance Board

Appendix D – Agency Comments

Agency management reviewed a discussion draft and provided no comments to this report. Agency management stated their general agreement with the findings and recommendations and opted not to provide formal comments for inclusion in this report.

Appendix E – Report Distribution List

Acting Archivist of the United States

Chief of Management and Administration

Chief Information Officer

Acting Chief Acquisitions Officer

Chief of Staff

Accountability

United States Senate Homeland Security and Governmental Affairs Committee

United States House of Representatives Committee on Oversight and Reform

OIG Hotline

The OIG Hotline provides a confidential channel for reporting fraud, waste, abuse, and mismanagement to the OIG. In addition to receiving telephone calls at a toll-free Hotline number and letters to the Hotline post office box, we also accept emails through an online referral form. Walk-ins are always welcome. Visit www.archives.gov/oig/ for more information, or contact us:

By telephone

Washington, DC, Metro area: 301- 837-3500

Toll-free: 800-786-2551

By mail

NARA OIG Hotline

P.O. Box 1821

Hyattsville, MD 20788-0821

By facsimile

301-837-3197

By online referral form

www.archives.gov/oig/referral-form/index.html

Contractor Self-Reporting Hotline

As required by the Federal Acquisition Regulation, a web-based form allows NARA contractors to notify the OIG, in writing, whenever the contractor has credible evidence a principal, employee, agent, or subcontractor of the contractor has committed a violation of the civil False Claims Act or a violation of Federal criminal law involving fraud, conflict of interest, bribery, or gratuity violations in connection with the award, performance, or closeout of a contract or any related subcontract. The form can be accessed through the OIG's home page or found directly at www.archives.gov/oig/contractor-form/index.html.