## Internal Audit Department NeighborWorks® America

## **Audit Review of**

Software Licensing, Maintenance,

**Support** 

**And** 

<u>Desktop/Laptop Inventory Management</u>

Project Number: 2015-ITS-SOFTLIC

Project Number: 2015-ITS-INVMGMT



### **Table of Contents**

Function	on Responsibility and Internal Control Assessment	3
Execut	ive Summary of Observations, Recommendations and Management Responses.	4
RISK F	ating Legend	8
Backgı	round	9
Scope		9
Metho	dology	9
Observ	ations and Recommendations	10
A.	Software Licensing and Support	10
В.	Desktop and Laptop Inventory Management	11
Conclu	sion	15
APPEN	DIX A: Software Purchases by Vendor	17
APPEN	DIX B: Purchase of Non-Standard Computers	18
APPEN	DIX C: Purchase Card Activity	19
APPEN	DIX D: Consultant BIO - Charles Phillips, CPA (US), CMIIA (UK)	20

#### June 26, 2015

To: NeighborWorks America Audit Committee

Subject: Audit Review of Software Licensing Maintenance and Support/Inventory

Management

Please find enclosed our draft audit report for the Software Licensing, Maintenance and Support/Inventory Management

Please contact me with any questions you might have. Thank you.

Frederick Udochi Chief Audit Executive

#### Attachment

cc: P. Weech

- C. Wehrwein
- J. Bryson
- L. Williams
- T. Bloom
- D. Konda

# Function Responsibility and Internal Control Assessment Audit Review of Software Licensing Maintenance and Support/Inventory Management

Business Function Responsibility	Report Date	Period Covered
Information Technology & Services (IT&S)	June 26, 2015	15 months ending March 31, 2015
Ass	essment of Internal Control St	ructure
Effectiveness and Efficiency of Operations		Generally Effective <sup>1</sup>
Reliability of Financial Reporting		Not Applicable
Compliance with Applicable Laws and Regulations		Not Applicable

This report was conducted in accordance with the *International Standards for the Professional Practice of Internal Auditing.* 

<sup>&</sup>lt;sup>1</sup> Legend for Assessment of Internal Control Structure: 1. Generally Effective: The level and quality of the process is satisfactory. Some areas still need improvement. 2. Inadequate: Level and quality of the process is insufficient for the processes or functions examined, and require improvement in several areas. 3. Significant Weakness: Level and quality of internal controls for the processes and functions reviewed are very low. Significant internal control improvements need to be made.

## Executive Summary of Observations, Recommendations and Management Responses

Summarized Observation; Risk Rating	Management Agreement with Observation (Yes/ No)	Internal Audit Recommendation Summary	Accept IA Recommendation (Yes/ No)	Management's Response to IA Recommendation	Estimated Date of Implementation (Month/Year)	Internal Audit Comments on Management Response
Observation No. 1 – Adequacy of Controls over Software Use and Licenses  During the course of our review, Internal Audit was unable to identify a comprehensive approach to managing, tracking and rationalizing software. Additionally, there were no policies, procedures or practices for maintaining or assuring that all in-use software was covered by a "Proof of License."  Risk Rating: (b) (5)	Yes	Recommendation No. 1 – Ensure Adequacy and Accountability of Controls over Software Use and Licenses  a. Develop policies, procedures, processes and/or methodologies for identifying, inventorying and tracking software from purchase to retirement.  b. Automate the oversight of software via an asset management tool such as Flex Net, SAM by Microsoft or others.  c. Establish specific accountability for the oversight of enterprise-wide software including a license inventory, compliance with terms and conditions, and optimization of license cost (e.g. combining single or smaller license agreements with lower cost volume license agreements).	Yes	a. IT&S is currently in the process of enhancing the policies and procedures in our current administrative manual for inventorying software and hardware. b. IT&S is currently in the process of completing the acquisition of an IT Service Management (ITSM) solution that will assist with software oversight. The solution has been identified and the contract will be executed in December 2015. c. While ITSM will assist with software license compliance monitoring through the use of the RemedyForce tool, it	04/30/2016	Internal Audit accepts Mgt.'s response.

Summarized Observation; Risk Rating	Management Agreement with Observation (Yes/ No)	Internal Audit Recommendation Summary	Accept IA Recommendation (Yes/ No)	Management's Response to IA Recommendation	Estimated Date of Implementation (Month/Year)	Internal Audit Comments on Management Response
				is incumbent on staff to respect and follow our processes.		
Observation No. 2 – Inconsistencies between the IT&S Computer Inventory and Human Resource Records  It may be necessary for some staff, particularly IT&S, to have multiple computers. However, policies and procedures need to be developed to provide consistency and accountability over the issuance and recovery of computers, most especially for those staff who are in the possession of multiple computers.  Risk Rating: (b) (5)	Yes	Recommendation No. 2 – Develop a Process to Reconcile Records between IT&S and HR  a. Develop procedures that would immediately reconcile changes in personnel to IT Inventory on a timely basis. b. Evaluate the HR On- Boarding and particularly, the Off-Boarding Processes to assure relevant information is conveyed between HR and IT&S on a timely basis.	Yes	A. IT&S is currently working on updating IT Asset Management policy and procedures that will address any updates or changes to equipment assigned based on personnel/staffing updates. B. IT&S and Human Resources agree to continue to enhance the timeliness of communication during staff onboarding and off- boarding. ITSM will assist with automating this process into a workflow with actionable assignments and notifications.	04/30/2016	Internal Audit accepts Mgt.'s response.

Summarized Observation; Risk Rating	Management Agreement with Observation (Yes/ No)	Internal Audit Recommendation Summary	Accept IA Recommendation (Yes/ No)	Management's Response to IA Recommendation	Estimated Date of Implementation (Month/Year)	Internal Audit Comments on Management Response
Observation No. 3 – Alignment of IT&S Asset Acquisitions with Organization Objectives  Internal audit noted a number of computer related transactions that underscore the need for an annual IT&S asset acquisitions plan, aligned with the organization's current and future objectives.  Risk Rating: (b) (5)	Yes	Recommendation No. 3 – Alignment of IT&S Asset Acquisitions with Organization Objectives  Develop and document an IT plan that aligns current and future technology needs and procurement strategies with organizational objectives.	Yes	IT&S is currently working on updating IT Asset Management policy and procedures that will address asset acquisition planning in alignment with organizational goals and objectives.	04/30/2016	Internal Audit accepts Mgt.'s response.
Observation No. 4 – Hardware and Software Acquisitions conducted without IT&S review and authorization.  Internal Audit identified approximately seven (7) of twenty (20) purchase card transactions (See Appendix C) primarily for the purchase of software which also included purchases of two computers, by programs other than the IT&S Division. While the aggregate value was relatively small, the ability of other division(s) to independently purchase either hardware or software items may result in the purchase of nonstandard hardware and software, including inventory, security, and support control gaps. Also, this type of activity	Yes	Recommendation No. 4 – Management should reorientate Programs regarding policies for acquiring Hardware and Software  We recommend that management re-orientate programs on the policies for the acquisition of hardware and software. IT&S Management should be knowledgeable about material hardware and software purchases prior to their acquisition. This requirement should be consistent with IT&S and Procurement policies. Excluding small item purchases, any computer hardware and software, except in the event of an immediate business necessity should be justified and documented to IT&S. This is	Yes	The NW Purchase Card Manual will be updated to require SVP, IT&S or its designee approval for any PCard purchases for IT software and/or hardware prior to the purchase. If the software/hardware is required for an emergency, the Program Office should purchase the required item and obtain IT&S approval no more than three (3) days after the purchase.	4/30/2016	Internal Audit accepts Mgt.'s response.

Summarized Observation; Risk Rating	Management Agreement with Observation (Yes/ No)	Internal Audit Recommendation Summary	Accept IA Recommendation (Yes/ No)	Management's Response to IA Recommendation	Estimated Date of Implementation (Month/Year)	Internal Audit Comments on Management Response
can result in the potential loss of reduced NWA vendor or GSA negotiated rates for bulk or high value purchase items.  Risk Rating: (b) (5)		necessary to reduce the potential for future inappropriate hardware and software becoming de facto additions to the NWA network using a Purchase Card.				
Observation No. 5 – Computer Hardware Inventory Records are maintained by IT&S without validation  IT&S has maintained a physical inventory of desktop and laptops. The computer is added to inventory when it is received. Details such as serial number, brand and cost are recorded in the IT&S inventory record based on the vendors' invoices and/or shipping receipts. A separate reconciliation of the actual items added to or removed from the IT&S inventory to ensure that all purchases and disposals were captured in the inventory record is not undertaken. As such, there is no validation to ensure completeness and accuracy of entries with an independent control document or account.  Risk Rating: (b) (5)	Yes	Recommendation No.5 – NWA Management needs to clarify and update the policy.  We recommend that given the significant financial commitment to purchasing IT equipment each year, Management should stipulate the level of detail required for the accurate maintenance of laptops and computer inventory and other high end computer equipment such as servers and other IT equipment from the acquisition stage through disposal. The current manual should also be revisited and revised to articulate this policy with more clarity	Yes	IT&S is currently working on updating IT Asset Management policy and procedures that will address acquisition, reconciliation and disposal.	04/30/2016	Internal Audit accepts Mgt.'s response.

#### **RISK Rating Legend**

#### Risk Rating: HIGH

A serious weakness which significantly impacts the Corporation from achieving its corporate objectives, financial results, statutory obligations or that may otherwise impair the Corporation's reputation.

#### Risk Rating: Moderate

A control weakness which could potentially undermine the effectiveness of the existing system of internal controls and/or operational efficiency, integrity of reporting and should therefore be addressed.

#### Risk Rating: Low

A weakness identified which does not seriously detract from the system of internal control and or operational effectiveness/efficiency, integrity of reporting but which should nonetheless be addressed by management.

Management Response to Audit Review of the Delegation of Authority							
# Of Responses	Response	Recommendation #					
5	Agreement with the recommendation(s)	1,2,3,4,5					
	Disagreement with the recommendation(s)						

#### **Background**

Information is arguably the organization's most significant intangible asset and, of course, computers and computer software are required to process that information in support of critical business functions.

Assurance around computer hardware (inventory), software maintenance and support requires a set of controls designed to ensure processes, procedures, products and costs are sufficient to track the use of organizational assets and monitor compliance with licenses and/or contracts.

#### **Objective**

The objectives of this review are to evaluate the processes and procedures for:

- Monitoring compliance with software licenses; and
- Acquiring, recording and tracking software and hardware;
- Assuring the completeness and accuracy of software and hardware records; and
- Identifying best practices, standards and/or potential opportunities to improve practices and methodologies.

#### **Scope**

The scope of this audit is as follows:

- The review covered the first 15 months (January 1, 2014 through March 31, 2015) with an emphasis on the first quarter of fiscal year 2015.
- Policies and processes for acquiring, deploying, disposing and/or recycling computer hardware and software, including license renewal and maintenance costs for desktop software.
- A primary focus was on inventory management of desktop and laptop computers.
- Network servers, web based applications including cloud computing, proprietary and nondesk top applications were not covered under this review. The adequacy, appropriateness and quality of current software were not covered in this review.

#### Methodology

Internal Audit began with an Introductory Meeting, for the Software portion of our review on April 22, 2015 and computer inventory on May 7, 2015. Our audit approach, scope, timeline and concerns were discussed with management from both IT&S and Finance.

It is worthwhile to note that the IT&S Division has been going through a number of staffing changes. As a result, IT&S personnel involved in this review have been with the organization for less than a year.

Our procedures included a review of existing IT&S policies, procedures and other documents for purchasing, recording and tracking computer software and hardware. IT&S noted that the current policies and procedures were under review and in a state of transition. We also maintained an open dialogue with personnel and sought clarification on matters that came to our attention during the course of our review. Our comments and observations are therefore based on a combination of these conversations, document reviews, analysis, and our testing. The results are detailed in the following pages.

#### **Observations and Recommendations**

#### A. Software Licensing and Support

#### Observation No. 1 - Adequacy of Controls over Software Use and Licenses:

Authority to use software is evidenced by a vendor license. The license represents its proof of purchase, stipulates how it can be used, and defines the number of users or occurrences and other contractual matters such as Proof of License (POL) documentation and internal compliance requirements. This includes specific identification of the computer it is running on, the name of the user, location, version number, license reference and other matters pertinent to the respective vendor.

Current software inventory practices at NWA are limited to sporadic scans of PCs using Microsoft's SCCM (System Center Configuration Manager). However, a computer can only be scanned if it's connected to the NWA Network when the SCCM is running. If the computer is not turned on or connected to the network then the software and hardware will not register. Additionally, the scan will not pick up Apple hardware or their respective software.

Over the 15 months, ending on March 31, 2015, we noted that approximately \$560,000 was spent on software [see APPENDIX A]. Software is expensed in the year it is purchased but generally remains in service for many years, similar to computer hardware. Historically, software purchases have not been inventoried or reconciled to actual installed software or software expenditures. As a result, Internal Audit was unable to identify a comprehensive approach to managing, tracking and rationalizing software. Additionally, there were no policies, procedures or practices for maintaining or assuring all in-use software was covered by a "Proof of License."

Currently, there are very few controls or processes to assure that all software assets have been accounted for and operating in compliance and accordance with relevant licensing terms and conditions. Additionally, the location of most software licenses was unknown. The impact of not having a Software Asset Management system or process includes, but is not limited to:

- a. meeting contractual Proof of License (POL) requirements;
- b. assuring compliance with relevant licensing terms and conditions;
- c. managing upgrades and version controls; or
- d. optimizing the cost based on license type e.g. Volume Licensing Agreements (VL),
   Original Equipment Manufacturer (OEM hardware/software bundle), Full Packaged
   Product (FPP sold on a single license basis), Electronic Software Distribution (ESD
   – downloaded from a website), MSDN subscription to use software such as web
   based, etc.

We would like to note, that IT&S is currently evaluating a more comprehensive approach to overseeing software assets and is in the process of asking vendors to submit a proposal for such an application.

## Recommendation No. 1 - Ensure Adequacy and Accountability of Controls over Software Use and Licenses

- Develop policies, procedures, processes and/or methodologies for identifying, inventorying and tracking software from purchase to retirement;
- b. Automate the oversight of software via an asset management tool such as Flex Net, SAM by Microsoft<sup>2</sup> or others;
- c. Establish specific accountability for the oversight of enterprise-wide software, including a license inventory, compliance with terms and conditions, and optimization license cost (evaluating and combining single or smaller license agreements with lower cost, volume license agreements).

#### B. Desktop and Laptop Inventory Management

Observation No. 2 – Inconsistencies between the IT&S Computer Inventory and Human Resource Records

Section 908 of the NWA Administrative Manual, Inventory and Control of Assets, indicates that Finance is responsible for recording and depreciating assets (equipment) in accordance with the organization's capitalization policy. Equipment is defined "as all tangible personal property having a useful life of more than one year". The Capitalization Policy also states, "In addition, laptop and desktop computers ...... will be inventoried regardless of their costs".

<u>Computer Hardware</u>: IT&S currently keeps a manual inventory of desktop and laptop computer hardware. The basis of this inventory has been a cumulative and historic combination of new equipment purchases, returned computers from departing personnel, equipment in storage (new, used, under repair and other) and unusable hardware; e.g. outdated and/or damaged. IT&S also performs a virtual count of computers logged via

<sup>&</sup>lt;sup>2</sup> For more information see Microsoft's Software asset Management Website at: <a href="http://www.microsoft.com/sam/en/us/">http://www.microsoft.com/sam/en/us/</a>

SCCM Scans (Microsoft – System Center Configuration Manager). The latter identifies any computer (except Apple products) logged onto the network by its unique machine/serial number.

During this period we noted approximately, \$580,000 in computer hardware purchases (general ledger account 50643), primarily for desktops and laptops. Current practices are to expense desktops and laptops in the period they are purchased. There are no book inventories or reconciliations between accounting and the IT&S inventory/records.

We crossed checked the IT&S computer inventory to Human Resources records and noted a number of inconsistencies. Additionally, the computer inventory reflected active in-use computers that were not assigned to a member of staff and employees with multiple computers. Summary totals are highlighted in the following table:

	Computers assigned to personnel no longer with NWA	Active personnel without an assigned computer	Active/In-Use computers generically assigned; e.g. Temps, Training, Home Ownership, Presentation Screen	Staff assign multiple comp	
Staff	4	9	7	Two (2) computers	29
Temps/ Consultants	9	19	1	Three (3) computers	4

We would like to note that it may be necessary for some staff, particularly IT&S, to have multiple computers. However, policies and procedures need to be developed to provide consistency and accountability over the issuance and need for multiple organizational computers.

Additionally, due to the cost, general mobility of laptops and, more importantly, the confidentiality of information, best practices must indicate that each member of staff should be held responsible and accountable for the assigned asset.

#### Recommendation No. 2 - Develop a Process to Reconcile Records between IT&S and HR

- Develop procedures that would immediately reconcile changes in personnel to IT Inventory on a timely basis.
- b. Evaluate the HR On-Boarding and particularly, the Off-Boarding Processes to assure relevant information is conveyed between HR and IT&S on a timely basis.
- c. Automate the IT Inventory process including input from other relevant departments; e.g. finance, procurement, human resources, others. It is our understanding that

- management is currently evaluating a new financial accounting application and so should take into consideration the addition of an inventory module that would be accessible for recording Assets including IT assets.
- d. Develop policies and procedures on the issuance of IT asset equipment most especially in the area of the issuance of, multiple computers to a member of staff. Additionally, develop procedures to assure accountability over generic laptops discussed above in 2.b.

#### Observation No. 3 - Alignment of IT&S Asset Acquisitions with Organization Objectives

Internal Audit noted a number of computer related transactions that underscore the need for formalizing an annual IT&S asset acquisitions plan that is aligned with the organization's current and future acquisition objectives. Examples of such purchases were as follows:

#### a. Dell Computer Purchases

Between May 9, 2014 and October 28, 2014, NWA purchased 237 Dell CTO Latitude Laptops, Model E7240 totaling \$403,000. Of which, 147 were issued to personnel as replacements for their older models. Approximately, 60 remained in-storage through May 2015.No specific plans have been articulated for the use of these laptops.

Keeping up with technical advances is critical to any organization's continued success. A strategy on how this is achieved needs to be agreed on and documented. To this end, we were unable to substantiate the cost benefit of purchasing approximately 60 extra laptops in October/November 2014. We estimate the unused laptops cost approximately \$100,000, without software.

#### b. Apple Computer Purchases

Between May 8, 2014 and October 10, 2014, at least seven Apple Computers were purchased, generally in consecutive lots of two. At the time of our review, only one was included in the IT&S Inventory and it was the only Apple assigned to a specific employee. One was reported missing. See details in **Appendix B**.

The high volume of Dell purchases and the non-standard<sup>3</sup> Apple Computers, which were generally unused, underscores the need to develop an IT&S asset acquisitions plan.

## Recommendation No. 3 - Confirm Alignment of IT Asset Acquisitions with Organizational Objectives

- a. Document that IT asset acquisition objectives align with current and future technology needs and procurement strategies with organizational objectives.
- b. Update the current policies and procedures to address the purchase and technical support of multiple technology platforms and officially designate standard computer equipment used by the Corporation.

<sup>&</sup>lt;sup>3</sup> Apple computers have not been regularly standard issue computer equipment for the Corporation.

## Observation No. 4 – Hardware and Software Acquisitions conducted without IT&S review and authorization

Internal Audit identified approximately seven (7) of twenty (20) purchase card transactions (See **Appendix C**), primarily for the purchase of software which also included purchases of two computers, by programs other than the IT&S Division. While the aggregate value was relatively small, the ability of other division(s) to independently purchase either hardware or software items may result in the purchase of non-standard hardware and software, in inventory, security, and support control gaps. Also, this type of activity can result in the potential loss of reduced NWA vendor or GSA negotiated rates for bulk or high value purchase items.

## Recommendation No. 4 – Management should re-orientate Programs regarding policies for acquiring Hardware and Software

We recommend that management re-orientate programs on the policies for the acquisition of hardware and software. IT&S Management should be knowledgeable about material hardware and software purchases prior to their acquisition. This requirement should be consistent with IT&S and Procurement policies. Excluding small item purchases, any computer hardware and software, except in the event of an immediate business necessity should be justified and documented to IT&S. This is necessary to reduce the potential for future inappropriate hardware and software becoming *de facto* additions to the NWA network using a Purchase Card.

## Observation No. 5 – Computer Hardware Inventory Records are maintained by IT&S without validation

As previously mentioned, Section 908 of the NWA Administrative Manual, Inventory and Control of Assets, indicates that Finance is responsible for recording and depreciating assets (equipment) in accordance with the organization's capitalization policy. Equipment is defined "as all tangible personal property having a useful life of more than one year". The Capitalization Policy also states, "In addition, laptop and desktop computers ...... will be inventoried regardless of their costs." This will meet the fiduciary responsibility to safeguard and protect the company's assets.

Over the 15 months, ending on March 31, 2015, we noted that approximately \$580,000 was expended on Computer Hardware (general ledger account 50643). Though the individual cost of a PC is typically less than \$2,000 per unit and as such falls below the company's capitalization threshold, most laptops are bulk purchases that may consist of more than fifty (50) laptops on one invoice.

As required by the policy, IT&S has maintained a physical inventory of desktop and laptops. The computer is added to inventory when it is received. Details such as serial number, brand and cost are recorded in the IT&S inventory record based on the vendors' invoices and/or shipping receipts. A separate reconciliation of the actual items added to or removed from

the IT&S inventory, to ensure that all purchases and disposals were captured in the inventory record is not undertaken. As such, there is no validation to ensure completeness and accuracy of entries with an independent document or account. The current policy is silent on bulk purchases of computer hardware and unclear surrounding how an inventory of laptops and computer equipment will be accurately maintained given current expensing practices under the Capitalization Policy.

#### Recommendation No. 5 - NWA Management needs to clarify and update the policy.

We recommend that given the significant financial commitment to purchasing IT equipment each year, Management should stipulate the level of detail required for the accurate maintenance of laptops and computer inventory and other high end computer equipment such as servers and other IT equipment from the acquisition stage through disposal. The current manual should also be revisited and revised to articulate this policy with more clarity.

**Note:** General ledger control totals for IT equipment have historically not been captured on the Balance Sheet. Developing such information through a subsidiary General Asset Account (GAA) where similar life assets are grouped in bulk for similar handling and do not need to be individually tracked for depreciation purposes would significantly improve the ability to perform and maintain the computer equipment inventory. This additional balancing / accountability would significantly improve controls over the second highest expenditure of the organization. Since the organization spends in excess of \$1M a year on IT hardware and software, keeping adequate controls over the acquisition and disposition of these assets provides management with some assurance that all stakeholders remain accountable for the organization's assets..

#### Conclusion

The Corporation has gone through many recent changes including key personnel changes within the IT&S Division. As a result, these transitions and changes have impacted the division's processes and procedures making the existing policies and procedures out-of-date, or not reflecting actual operating procedures. We would like to add that the new IT&S Management is very aware of these matters and is taking necessary actions to correct these deficiencies accordingly. We would also like to thank the IT&S Department for their cooperation and transparency during our review.

#### IT&S Technology Governance

Desktop and mobile computing appears to have been driven primarily by technology support services, budget and equipment replacement calendars. At the direction of new senior management, IT&S appears to be migrating toward a more holistic approach to managing technology needs. Because this is an evolving process Internal Audit felt it appropriate to summarize areas under development and allow IT&S to define the deliverables and timelines, as follows:

- 1. Enterprise Hardware Assets Acquisition Strategy (reviewed, updated and approved annually)
  - a. Confirm an IT assets acquisition strategy is aligned with organizational direction and future computing needs; and
  - b. Centralize Control of hardware and software purchases using a single IT&S Purchase Card
- 2. Updating of Policy and Procedures; including:
  - a. Define the types of approved "standard" hardware and software for enterprisewide use.
  - b. Hardware Inventory processes and final disposition and the frequency of verification,
  - c. Consolidated license and service agreement library

Internal Audit did not include the above comment as an Observation/Recommendation but wished to acknowledge the general direction of the new IT&S Management. It is our view that failure to address the IT&S Governance matters can perpetuate the internal control weaknesses identified in our report.

#### **APPENDIX A**: Software Purchases by Vendor

Softwa 2015	are by Vendor for the 15 months ended 31 March	Software		
Scope	: 15 months ended 31 March 2015	License and Maintenance	Computer	
	Vendor or Description	GL 50646	GL 50642	
1	ALLIANT MANAGED SERVICES [AMSOO]	7,177.50		
2	AXOSOFT [AXOSO]	746.75		
3	C.W. P. S., Inc. [CWPSI]	8,962.50		
4	CISCO WEBEX, LLC [WEBEC]	4,000.00		
5	CLEAR PATH SOLUTIONS GROUP [CLEAR]	32,776.00	4,774.00	
6	CLICKS [CLICK]	791.00		
7	COMPUWARE CORPORATION [COMPU]	44,293.00		
8	DATASPAN [DATAS]	18,415.74		
9	DOCPOINT SOLUTIONS, INC [DOCPT]	3,745.80		
10	DUNDS DATA VISULIZATION [DUNDS]	10,193.00		
	GET CONNECT [GETCO] 2014 = GL 50646 and 2015			
11	= GL 50642	3,801.00	3,801.00	
12	GORGES, Inc. [GORGE]	6,000.00		
13	IDV SOLUTIONS [IDVSO]	53,667.45		
14	KENTICO SOFTWARE LLC [KENTI]	8,999.00		
15	LEAD FUSION INC [LEAFU]	22,799.00		
16	LYRIS TECHNOLOGIES [LYRIS]	7,000.00		
	MCGRAW-HILL GLOBAL EDUCATION HOLDINGS			
17	[MCGRW]	31.50		
18	MS Windows Remote #AP23939	124.75		
19	NATIONAL COUNCIL ON AGING [NACOA]	12,500.00		
20	NETMON INC [NETMON]	7,679.95		
21	Office Space Software License	3,000.00		
22	ORACLE AMERICA [ORACL]	86,043.82		
23	SALESFORCE.ORG [SALES]	73,920.00		
24	Scantron Corp. [SCACO]		3,340.00	
25	SILKROAD TECHNOLOGY [SILKR]	18,440.00		
26	SOFTCHOICE CORPORATION [SOFTC]	35,440.21	562.50	
27	SYNTRIO [SYNTR]	4,680.00		
28	THE REINVESTMENT FUND [TRF000]	19,000.00		
29	VINITECH [VINIT]	16,756.95		
30	VISA - Procurement Cards - Various Suppliers	19,856.19	4,006.01	
31	WEB TRENDS, INC [WEBTR]	1,975.00		
	WOLTERS KLUWER FINANCIAL SERVICES INC			
32	[WOLTE]	7,995.00		
33	ZOHO CORPORATION [ZOHOC]	1,995.00		
		542,806.11	16,483.51	
	Total Software	559,28		

#### **APPENDIX B:** Purchase of Non-Standard Computers

Apple Computer Purchases which were not reflected in Inventory, except as noted. Source: SoftChoice - 2014 Vendor Invoices

- i. MacBook Air Core's purchased on 08 May 2014:
  - a. SC17MLA32G085 in storage
  - b. SC17MLA2KG085 missing
- ii. MacBook Pros purchased on 20 May 2014:
  - a. SCO2MGF3HFGYY was the only Apple listed in inventory. It was assigned to an employee who also had two Corporate Dell Laptops.
  - b. SC02MGFSAFGYY in storage
- iii. BTO MacBook's purchased on 10 Oct.
  - a. SC02N82HSG5RN in storage
  - b. SC02N82HZG5RN in storage
- iv. Mac Pro Tower purchased on 24 June
  - a. SF5KMR1F0F9VM Mac Pro Tower was not reflected in the IT&S inventory but was subsequently added.
- All the above were subsequently added to the IT&S Inventory and remain in storage. The Mac Pro Tower (i. a.) was subsequently assigned to a print room employee.
- One MacBook Air Core is unaccounted for and considered missing (i.b.)

#### **APPENDIX C:** Purchase Card Activity

#### Hardware and Software purchases for the 15 months ended 31 March 2015

		ement Card activity								
Scope: 01 Jan	uary 2014 1	thru 31 March 2015 (	15 Months)			GL Acct 50646	GL Acct 50643	GL Acct 50642		
				Vendor		SW License	Computer	Computer	Total by De	enartment
				Pay Hst		and Maint.	Hardware	Software	. o ta. 27 2	e par ciricin
Cardholder	Dept.	Date of Purchase	Vendor	,	Amount		Sum		Total	Dept.
		7/17/2014	Basecamp		20.00					
		7/17/2014	Network So		123.93					
		1/17/2014	Axosoft		746.75					
		1/17/2014	Github.com		25.00					
		11/17/2014	Comodo Gro		335.85					
		2/17/2014	Central Inf		50.00	5,203.91				
(b) (6)	280	2/17/2014	Github.com		25.00	3,203.91			9,817.08	280
(D) (O)	200	2/17/2014	Metalogix I		1,560.00				9,617.06	200
		3/17/2014	Lunar Logic		96.00					
		4/17/2014	ZOHO Corp	(*)	1,795.00					
		5/17/2014	www.element		400.00					
		6/17/2014	Techsmith		26.38					
		9/26/2014	Dell Federa	(1)	1,514.17		1,514.17			
		9/26/2014	Apple Onlin	(1)	3,099.00		3,099.00			
(h) (C)		11/17/2014	Aspose		1,799.00	2 024 00				
(b) (6)	290	9/17/2014	SoftChoi	(2)	2,032.00	3,831.00			6,231.00	290
(b) (6)		7/17/2014	Freeshde[sk] (*)	(1)	2,400.00			2,400.00	1	
(b) (6)		8/21/2014	Poll Ever		140.00			140.00		
	250	3/17/2014	Techsmit		99.95					250
(b) (6)	250	4/17/2014	Msft Onl	(1)	3,426.30	3,601.43			3,741.43	250
( ) ( )		3/17/2015	HostMyS		75.18					
		Total P-Card Activit	y			12,636.34	4,613.17	2,540.00	19,789.51	
		15 Months Ended 31 March 2015			19,789.51	SW License	Computer	Computer		
						and Maint.	Hardware	Software		
(1)	Does not a	appear to have been	nurchsaed through	SoftChoic	e: not in ve	ndor payment hi	story			
		in SoftChoice vendor			,	, and payment in	1.			
(2)		ent parellels with Zol								

APPENDIX D: Consultant BIO - (b) (4), CPA (US), CMIIA (UK)

#### EDUCATION/PROFESSIONAL DESIGNATIONS/CERTIFICATION

BS-Accounting; Missouri State University

BS- Business and Management, Information Systems; University of Maryland

Certified Public Accountant (US)

CMIIA (Chartered Internal Auditor – UK)

#### SUMMARY OF EXPERIENCE

7 years private practice; (b) (4)

10 years Big 4 Accounting; PwC and Arthur Andersen.

20 years as head of internal audit.

5 years of financial reporting experience with a Fortune 500 Company.

#### AREAS OF SPECIALIZATION

Information Systems, audit and controls
Internal Controls over Financial Reporting
COSO, COBIT and PCAOB
Enterprise Risk Management
Project Management
Fraud Risk Assessment and Prevention
Operational Rationalization and Integration
Internal Auditing

#### INDUSTRY EXPERIENCE

Federal Agencies Government Contractors Financial Services Telecommunications Entertainment and Media

#### PROFESSIONAL AFFILIATIONS

American Institute of Certified Public Accountants (AICPA)
Chartered Institute of Internal Auditors, England and Wales
Institute of Internal Auditors (IIA), USA
Institute of Management Accountants (CMA)
Information Systems Audit and Control Association (ISACA)
Association of Certified Fraud Examiners (ACFE)