



T. Bert Fletcher, CPA, CGMA
City Auditor

HIGHLIGHTS

Highlights of City Auditor Report #1702, a report to the City Commission and City management

WHY THIS AUDIT WAS DONE

Printing and copying documents is a cost of doing business that, while not significant on an individual page basis, is often significant in the aggregate. Several approaches can be used to control those costs; including using efficient printing/copying equipment (devices), limiting the number of devices by strategic location and required sharing of equipment, and standardization to reduce maintenance and support efforts.

The scope of this audit focused on selected printers and multifunction devices (capable of printing, scanning, and copying) that were in use within the City during the period April 1, 2016, through June 30, 2016.

The purpose of this audit was to identify opportunities for the City to realize efficiencies in printing and copying documents and records through:

1. The use of alternative procurement methods that will reduce the acquisition costs of multifunction devices (MFDs).
2. A reduction in the number of printers and MFDs necessary for City staff to effectively perform their duties and assignments.
3. A reduction in number and variety of makes and models of printers and MFDs to allow for more efficient maintenance and support by Technology and Innovations Department (T&I) staff.

WHAT WE CONCLUDED

We identified three areas where savings and increased efficiencies could be realized in regard to printing and copying of City documents and records. Those areas relate to the manner in which MFDs are acquired, the use of desktop printers within certain City departments, and the required maintenance and support of City printers. Specifically, we determined that significant savings could be realized by (1) transitioning from leasing to direct purchase of MFDs; (2) eliminating certain desktop printers in Procurement Services, Risk Management, and Retirement Services and re-evaluating desktop printer usage throughout the City; and, (3) to the extent practicable, standardizing the printers and MFDs used within the City.

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December 6, 2016

Audit of City Printers and Copiers

We identified three areas where savings and increased efficiencies could be realized in regard to printing and copying of City documents and records. Those areas relate to the manner in which MFDs are acquired, the use of desktop printers within certain City departments, and the required maintenance and support of City printers.

WHAT WE RECOMMENDED

To increase the efficiency of printing and copying of documents within the City, we made the following recommendations:

- We recommend City management consider discontinuing the practice of leasing MFDs as the existing leases expire, and acquire subsequent MFDs through direct purchase agreements. Additionally, circumstances should be monitored on an ongoing basis to ensure the direct purchase option remains the best financial alternative.
- We recommend Procurement Services consider disposing of the existing desktop printers once the current supply of ink and toner is exhausted.
- We recommend Risk Management consider acquiring a single network printer or MFD with the necessary technical capability for use by all staff, and eliminating the current desktop printers.
- We recommend Retirement Services consider elimination of the current desktop printers.
- We recommend management review desktop printer usage in all City facilities and departments in an effort to identify desktop printers that could be eliminated without a significant negative impact on staff productivity.
- We recommend T&I work with City departments to develop a list of printers (including MFDs) that meet the functionality required by the different City departments, and which are also economical from an acquisition and maintenance cost perspective. Functional characteristics that should be considered include, but are not limited to, print speed (pages printed per minute), duplexing, color printing, sorting, collating, and binding. The list of recommended printers should be updated on a periodic basis to address changes in makes and models, functionality, costs, and maintenance requirements.

We would like to acknowledge the full and complete cooperation and support of applicable management and staff of Technology and Innovations, TPD, the various City departments located in City Hall and the Gemini Building, as well as that of the other City departments that assisted with our survey of MFD usage throughout the City.

Office of the City Auditor

Audit Report



T. Bert Fletcher, CPA, CGMA
City Auditor

Audit of City Printers and Copiers

Report #1702

December 6, 2016

Executive Summary

The purpose of this audit was to identify opportunities for the City to realize efficiencies in printing and copying documents. We identified three areas where such efficiencies could be realized. Those areas relate to:

- **Changing the method of acquisition for multi-function devices (MFDs) from leasing to direct purchasing.**
- **Re-evaluating the usage of less efficient desktop printers in all City facilities and departments.**
- **Reducing the variety of makes and models of printers and MFDs used in the City.**

Printing and copying documents is a cost of doing business that, while not significant on an individual page basis, is often significant in the aggregate. Several approaches can be used to control those costs; including using efficient printing/copying equipment (devices), limiting the number of devices by strategic location and required sharing of equipment, and standardization to reduce maintenance and support efforts.

The objective of the audit was to identify opportunities for the City to realize efficiencies in printing and copying documents and records through:

- Use of alternative procurement methods that will reduce the acquisition costs of MFDs.
- A reduction in the number of printers and MFDs necessary for City staff to effectively perform their duties and assignments.
- A reduction in number and variety of makes and models of printers and MFDs to allow for more efficient maintenance and support by Technology and Innovations Department (T&I) staff.

To meet those objectives, we answered the following three questions.

1. Are there alternative procurement methods that would allow MFDs to be acquired at lower costs?
2. Are there indications City departments and offices should re-evaluate the number of printers and MFDs in use to determine if that number can be reduced without significant impacts on employee productivity?
3. Can the makes and models of printers and copiers acquired and used within the City be standardized so as to provide for more efficient maintenance and support efforts?

To facilitate the accomplishment of those objectives we obtained an understanding of the acquisition methods available for procuring MFDs, analyzed the City's acquisition of MFDs, visited selected City

buildings to identify and plot the location of printers, and interviewed applicable City staff.

Audit Results

Question No. 1: Are there alternative procurement methods that would allow MFDs to be acquired at lower costs?

Our analysis of the acquisition of City MFDs showed they were acquired through appropriate means for which reasonable and competitive prices were obtained.

Our survey identified 73 MFDs in use within the City, for which 66 (or 90%) were acquired through a contractual leasing arrangement and 7 (or 10%) were acquired by direct purchase from a vendor. We compared the lease payments paid pursuant to the leased MFDs' costs that would be incurred if those leased MFDs had been purchased directly (outright) from the available vendors.

Our analysis showed that the cost of a direct purchase of a MFD was always less than the sum of the payments made under a leasing arrangement. In summary, for the 66 MFDs that were leased, the total lease payments over respective lease periods totaled \$377,838, whereas the cost of direct purchasing those 66 MFDs would have totaled \$351,016, or a difference of \$26,822 over the life of the leases. Furthermore, our review showed that if the MFDs currently being leased in the City had been purchased outright and used one year beyond their current lease periods, the City would realize a savings of approximately \$141,000. For each additional year those MFDs are used before being replaced, the City would realize savings of approximately \$114,400. Additional savings of \$13,200 could be realized if those 66 MFDs were sold as surplus at the end of their useful lives.

To realize such savings in the future, we recommend City management consider discontinuing the practice of leasing MFDs and, as the current leases expire, acquire future MFDs through direct purchase agreements.

Question No. 2: Are there indications City departments and offices should re-evaluate the number of printers and MFDs in use to determine if that number can be reduced without significant impacts on employee productivity?

To answer this question, we selected three representative locations where significant City business is conducted, to include: (1) City Hall, (2) Tallahassee Police Department (TPD) Headquarters, and (3) the Gemini Building. Within City Hall we identified 120 printers and MFDs; within TPD Headquarters we identified 69 printers and MFDs; and within the Gemini Building we identified 43 printers and MFDs. Our analysis of printing costs at those locations showed the average cost of printing from desktop printers was approximately \$0.03 (3 cents) per page, while the average cost per page for network printers and MFDs were approximately \$0.02 (2 cents) and \$0.006 (six-tenths of one cent), respectively.

For the most part, we determined there were no redundancies or inefficiencies in printing capabilities and equipment within City Hall, TPD Headquarters, and the Gemini Building. We did identify three City departments, however, where consideration should be given to elimination of current desktop printers. Those three departments were Procurement Services, Risk Management, and Retirement Services. Appropriate recommendations relative to those three departments were made

as a result. Management was receptive to those recommendations.

Additionally, based on the identification of those three departments, we have concluded the City as a whole would benefit from management’s re-evaluation of desktop printer usage. Accordingly, we recommend management review desktop printer usage in all City facilities and departments in an effort to identify desktop printers that could be eliminated without a significant negative impact on staff productivity.

Question No. 3: Can the makes and models of printers and copiers acquired and used within the City be standardized so as to provide for more efficient maintenance and support efforts?

In answering this question, we first determined that there were approximately 500 different print drivers currently installed on the City’s network which is indicative there is a similar number of printer makes and models within the City. Each of those makes and models must be maintained and supported by the City’s Technology and Innovations (T&I) Department.

The significant variety in the makes and models of printers makes maintenance and support tasks more difficult and costly to manage, as T&I staff must familiarize themselves with a relatively large number of different printers. Accordingly, we recommend T&I work with City departments to reduce the variety of makes and models used within the City, by identifying and developing a list of printers (including MFDs) that are efficient and competitively priced, and that meet required functionality. The list of recommended printers should be updated periodically to address changes in makes and

models, functionality, costs, and maintenance requirements.

Acknowledgements

We would like to acknowledge the full and complete cooperation and support of applicable management and staff of T&I, TPD, the various City departments located in City Hall and the Gemini Building, as well as that of the other City departments that assisted with our survey of MFD usage throughout the City.

Scope, Objectives, and Methodology

The scope of this audit focused on selected printers and multifunction devices (capable of printing, scanning, and copying) that were in use within the City during the period April 1, 2016, through June 30, 2016. The objective of the audit was to identify opportunities for the City to realize efficiencies in printing and copying documents and records through:

- Use of alternative procurement methods that will reduce the acquisition costs of multifunction devices (MFDs).
- A reduction in the number of printers and MFDs necessary for City staff to effectively perform their duties and assignments.
- A reduction in number and variety of makes and models of printers and MFDs to allow for more efficient maintenance and support by Technology and Innovations Department (T&I) staff.

To meet those objectives we performed procedures to answer the following three questions:

1. Are there alternative procurement methods that would allow MFDs to be acquired at lower costs?
2. Are there indications City departments and offices should re-evaluate the number of printers and MFDs in use to determine if that number can be reduced without significant impacts on employee productivity?
3. Can the makes and models of printers and copiers acquired and used within the City be standardized so as to provide for more efficient maintenance and support efforts?

To facilitate the accomplishment of our audit objectives we performed the following procedures:

- Identified the methods and practices used by, and available to, the City for acquisition of MFDs.
- Analyzed acquisitions of MFDs throughout the City to determine if use of alternative procurement methods will result in future cost savings.
- Surveyed City departments and made site visits to selected City buildings for the purpose of identifying printers and MFDs used by City employees.
- Plotted the location of printers and MFDs in the buildings surveyed (visited) and interviewed applicable management and staff to determine if there were printing redundancies that could be eliminated without curtailing employee productivity.
- Interviewed City management and staff regarding the installation, configuration, maintenance, and management of printers and MFDs connected to the City's computer network infrastructure.
- Interviewed selected vendors for the purpose of gaining an understanding of

MFDs and the manner in which they can be configured and the options available to acquisition (lease and direct purchase).

(Note: Because of unique printing and copying needs of the various City departments and because of the variety of options for desktop and specialty printers, this audit did not address the acquisition of those devices.)

We conducted this audit in accordance with the International Standards for the Professional Practice of Internal Auditing and Generally Accepted Government Auditing Standards. Those standards require that 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.

Background

Overview

Printing and copying documents is a cost of doing business that, while not significant on an individual page basis, is often significant in the aggregate. For example, the cost of ink/toner for a single page typically ranges from \$0.005 (one-half cent) to \$0.06 (6 cents). Yet, at an average per page cost of \$0.02 (2 cents), the cost of printing/copying 500,000 pages monthly would be \$10,000. Several approaches can be used to control printing and copying costs; including using efficient printing/copying equipment (devices), limiting the number of devices by strategic location and required sharing of equipment, and standardization to reduce maintenance and support efforts.

Factors other than costs should also be considered in the decision as to the number and type of devices needed by a department (or group of departments). One factor is the volume of printing, copying, and scanning necessary for a department to efficiently and effectively carry out its mission. Departments and functions that need to copy, print, or scan higher volumes of documents and records generally must acquire more efficient devices with larger production capabilities, which often are relatively more expensive. Multiple devices are sometimes needed depending on the volume and device capabilities.

Another factor that may impact decisions on the type and/or number of devices needed is the security of the documents and records being printed, copied, or scanned. For example, for confidential or otherwise sensitive documents and records, it may be appropriate to provide applicable staff more secure devices (i.e., devices to which physical access is restricted), thereby necessitating more printers and copiers than would otherwise be needed. In the course of this audit, we considered these non-costs factors (business needs) in analyzing activity and making recommendations.

Types of Devices Used for Printing

For purposes of this audit, we categorized printing, copying, and scanning devices into three broad classifications: desktop printers, network printers, and multifunction devices (MFDs).

Desktop Printers

Desktop printers are relatively smaller devices that are generally used by one or a few employees in an office setting. Generally, they print slower (fewer pages per minute), have a smaller paper capacity, and have a

shorter life span than network printers and MFDs. They are not used to meet high volume print needs. The acquisition cost of a desktop printer is lower than the cost of the other types, network printers and MFDs. However, they are less efficient and therefore the cost of printing (non-acquisition cost per page printed) is typically higher.

Image 1
Desktop Printer



Network Printers

Compared to desktop printers, network printers typically have a higher acquisition cost but are generally more efficient. They print faster (more pages per minute), have a larger paper capacity, and are more robust. Network printers are typically used in a setting that allows multiple employees in the same general area, such as an office suite, to print documents and records. Network printers are generally single purpose devices that do not perform other functions such as copying and scanning.

Image 2
Network Printer



Image 3
Multifunction Device



Multifunction Devices

Multifunction devices are relatively large pieces of equipment that are capable of printing, copying, and scanning documents and records. Compared to network printers they print faster and have a significantly larger paper capacity. They have the highest acquisition costs, but are generally the most efficient, with the lowest non-acquisition printing cost per page printed. Similar to network printers, they are typically used in settings that allow multiple employees to print, copy, or scan documents. The capability of a MFD to serve multiple functions may allow a City department, or group of departments, to forego the acquisition of individual scanners, copiers, and/or printers; therefore offsetting the relatively higher acquisition cost of those devices.

Methods of Printing

Current devices generally produce printed documents through two methods, inkjets and lasers. The characteristics of each of those methods are discussed in the following.

Inkjet Printers

Inkjet printers use a liquid or gel-type ink to create text and images on paper. Inkjet printers typically produce text that is not as refined as that produced by a laser printer. However, inkjet printers generally print clearer and more refined photographs compared to laser printers. For the most part, the acquisition cost of inkjet printers is less than the acquisition cost of laser printers. But, inkjet printers have a relatively higher non-acquisition cost (cost per page printed is higher). As such, inkjet printers are better suited for departments with low print volume expectations.

Laser Printers

Laser printers produce clear crisp text when printing documents by heating and fusing toner to paper with a laser. While text is sharper compared to an inkjet printer, they typically do not produce photographs that are as clear as those produced by an inkjet printer. Compared to inkjet printers, laser printers have a relatively higher acquisition cost but lower non-acquisition cost (cost per page printed is lower). Many network printers and most MFDs are laser printers. Laser printers are suited for departments with high print volume expectations.

Audit Results

Question No. 1: Are there alternative procurement methods that would allow MFDs to be acquired at lower costs?

To answer this question we: (1) identified the MFDs used in the City, (2) reviewed the procurement methods used in acquiring those MFDs, (3) analyzed the acquisition of each MFD, and (4) determined the likely cost savings and related potential budgetary implications of changing procurement methods, i.e., from leasing to direct purchase.

Overall, we found MFDs were acquired by City departments through allowable and appropriate means for which reasonable and competitive prices were obtained. However, we did determine that, under current circumstances, the direct purchase of MFDs would likely result in meaningful savings when compared to the acquisition costs incurred by leasing those devices. This is discussed in detail in the following paragraphs.

MFD Population

We surveyed all City departments to identify the MFDs in use, the make and model of those MFDs, and the manner in which those MFDs were acquired. Our survey identified 73 MFDs in use within the City, for which 66 (or 90%) were acquired through a contractual leasing arrangement and 7 (or 10%) were acquired by direct purchase from a vendor. The following table shows the 73 MFDs by City department.

**Table 2
MFD Distribution by Department**

Department	Number of MFDs
Accounting Services	2
Aviation	3
Community Housing and Human Services	2
City Attorney’s Office	1
Communications	1
Community Beautification & Waste Management	2
Customer Services	8
Electric Utility	11
Financial Management	1
Fleet & StarMetro	3
Growth Management	1
Parks & Recreation	3
Procurement	5
Revenue Division	1
Tallahassee Fire Department	3
Tallahassee Police Department	11
Underground Utilities & Public Infrastructure	15
Total	73

Procurement Methods

As previously stated, our audit showed the majority (90%) of MFDs were acquired through a leasing arrangement. Those leases were executed through a State of Florida and other government contracts available to the City and other local governments. By conducting online research of sale and lease prices, reviewing and analyzing available State of Florida and other government contracts, and interviewing representatives of local MFD vendors, we determined that the prices paid by City departments for the City MFDs (both leased and purchased) were competitive and reasonable. Specifically, we found the State of Florida Term Contract 600-000-11-1 Multifunction Products, Printers, Facsimile, Scanners, Related Software, Supplies, and Services (State of Florida contract) was generally the lowest and most favorable cost option for leasing or buying MFDs. Of the 73 City MFDs, 62 (85%) were acquired through that contract. The remaining 11 MFDs were model types not available on the State of Florida contract. For those 11 MFDs, we determined the acquisitions were made through two other government contracts; specifically, a contract executed by the University of South Florida and a contract executed by the U.S. Communities Purchasing Alliance, a nonprofit purchasing alliance founded by national organizations including the National League of Cities and National Association of Counties.

Cost Analysis

As previously noted, the State of Florida and other government contracts provided both lease and direct purchase options. For the leased MFDs, we compared the lease payments paid pursuant to the respective

leases to costs that would be incurred if those MFDs were purchased directly (outright) from the available vendors. Our analysis showed that the cost of a direct purchase of a MFD was always less than the sum of the payments made under a leasing arrangement.

In summary, for the 66 MFDs that were leased, the lease payments over respective lease periods totaled \$377,838, whereas the cost of direct purchasing those 66 MFDs would have totaled \$351,016, or a difference of \$26,822 over the life of the leases. We acknowledge that difference, representing only 8% of the total costs, is not material, especially given the time value of money (i.e., the amount initially disbursed under a lease is less than the amount disbursed under a direct purchase, therefore amounts that are not initially disbursed under a lease agreement can be temporarily invested pending the next lease disbursement). We also acknowledge that acquiring MFDs through leases has a smoothing effect on the budget of applicable departments in that annual lease expenditures are generally consistent from year to year, and do not result in periodic spikes in expenditures in those years that MFDs are directly purchased.

Notwithstanding the above circumstances, we determined there is a significant savings that can be realized through direct purchases compared to leasing. For example, leases of MFDs are generally for a three-year period. At the end of the respective three-year periods, applicable City departments renew or execute new leases. Under this often used scenario, lease payments continue indefinitely. In contrast, if a MFD is purchased outright, no additional payments are made for that MFD for the period the City owns and uses it. Accordingly, a MFD

purchased outright and used for four years before being replaced will result in savings roughly equal to a year of lease payments. Our calculations show that if the MFDs currently being leased in the City had been purchased outright and used for one year beyond their current lease periods (i.e., a fourth year), the City would realize savings of approximately \$141,000 (comprised of the savings of \$26,822 noted above, and the amount of annual lease payments totaling \$114,411). For each additional year those MFDs are used before being replaced, the City would realize an additional \$114,411 (amount of annual lease payments).

In addition to the acquisition cost analysis described above, we also considered the disposal cost of MFDs and any related salvage value of those devices if the City were to begin a general practice of purchasing MFDs rather than leasing. Our analysis of MFD disposals indicated that it would cost the City approximately \$120 to dispose of each MFD through the on-line auction process used for the disposition of most City assets. The analysis also indicated that, on average, the City could expect to receive approximately \$320 for each MFD, for a net benefit to the City of approximately \$200 per MFD, or \$13,200 for the 66 MFDs addressed in our analysis.

Additionally, our review of MFD acquisitions using the State of Florida contract showed MFD maintenance costs were the same for both leased or purchased MFDs. Accordingly, maintenance costs were not considered as part of the acquisition analysis.

Conclusion and Recommendation

We determined that potential savings of approximately \$141,000 could be realized if

MFDs are purchased directly and used one year beyond the end of the current lease periods. An additional savings of \$13,200 could be realized when those MFDs are sold as surplus. Accordingly, we recommend City management consider discontinuing the practice of leasing MFDs as the existing leases expire, and acquire subsequent MFDs through direct purchase agreements. Circumstances should be monitored on an ongoing basis to ensure the direct purchase option remains the best financial alternative.

Question No. 2: Are there indications City departments and offices should re-evaluate the number of printers and MFDs in use to determine if that number can be reduced without significant impacts on employee productivity?

To answer this question, we selected three locations where significant City business is conducted, to include: (1) City Hall, (2) Tallahassee Police Department (TPD) Headquarters, and (3) the Gemini Building. For each location, we performed walk-throughs to identify printers and MFDs and interviewed applicable City staff as to their use. Within City Hall we identified 120 printers and MFDs; within TPD Headquarters we identified 69 printers and MFDs; and within the Gemini Building we identified 43 printers and MFDs. Part of determining if the number of printers and MFDs could be reduced included ascertaining if the composition of printers and MFDs for specific departments and areas could be revised to allow for more efficient printing operations. Our review showed that, for the most part, there were no redundancies or inefficiencies in printing capabilities and equipment within the selected locations. Except for the instances noted below, current usage and

circumstances justified the existing printers and MFDs at the three selected locations.

Print Cost Analysis

As stated in the background section of this report, desktop printers are relatively smaller devices that are generally used by one employee. They are generally less efficient when compared to network printers and MFDs. Our analysis showed the average cost of printing from desktop printers was approximately \$0.03 (3 cents) per page, while the average cost per page for network printers and MFDs were approximately \$0.02 (2 cents) and \$0.006 (six-tenths of one cent), respectively.

Savings through Elimination of Desktop Printers

Our survey of City locations indicated there is a potential for cost savings, without curtailing employee productivity, if management re-evaluates and makes changes in the usage of desktop printers throughout the City. This conclusion was reached based on our review of desktop printers within three departments in City Hall. Specifically, while there was justification for most printers and MFDs addressed by our audit, we determined that Procurement Services, Risk Management, and Retirement Services could realize future cost savings by elimination of desktop printers. The applicable circumstances for each department are explained in the following paragraphs.

Procurement Services

During our review, we determined that the 23 employees within the Procurement Services Office had 18 desktop printers available for their use. In 17 instances, an employee had a desktop printer located in his/her office or

work cubicle (in one instance an employee had a second desktop printer that was not currently in use). Additionally, those employees had three network printers and three MFDs available to meet their printing needs. Based on our observations and interviews of those employees and their manager, we determined all of those desktop printers could be eliminated without curtailing employee productivity.

In response to our inquiries on this matter, the Procurement Services Manager stated they had previously recognized that cost savings could be realized by elimination of the noted desktop printers. The manager indicated that plans were in place to no longer replace the existing desktop printers once they stopped functioning, and to subsequently require staff to use the available network printers and MFDs. While we commend that plan, we recommend management consider realizing earlier savings by disposing of the existing desktop printers once the current supply of ink and toner is exhausted.

Risk Management

Much of the work conducted by the Risk Management Division is confidential in nature as it relates to unsettled insurance claims. To preclude the printing of confidential documents on devices that may not be adequately secured from unauthorized access, seven desktop printers were previously acquired and provided to the seven staff that work and process claims. We noted those desktop printers (which can be used to scan and copy as well as print) were located in the applicable staffs' offices and work cubicles.

While we acknowledge the need to maintain confidentiality of relevant claim records and documents, we determined that developments

in printing technology allow for “secure printing” of documents on devices to which access is not restricted. Under this technology, an employee may send a command from his or her computer to print a confidential document on a network printer or MFD located in an unrestricted area, but the applicable document will not print until the employee physically enters a secured password into the network printer or MFD (i.e., the employee sends the print command from the computer at his/her desk, walks to the printer and enters the protected password, and then the document physically prints while the employee is at the printer). If this technology were applied in Risk Management, the less efficient desktop printers could be eliminated without curtailing employee productivity. We recommend Risk Management consider acquiring a single network printer or MFD with the described technical capability for use by all staff, and eliminating the current desktop printers.

Retirement Services

Within the Retirement Services Section, there is a centrally-located network printer available to all employees. In addition, each of the eight employees in that section has a desktop printer in his/her office or work cubicle. In response to our inquiries regarding the need for each employee to have a desktop printer, management indicated previous management provided for the individual desktop printers to facilitate customer services for current City employees, retirees, and their families/beneficiaries. Current management, however, acknowledged that customer service would likely not be impacted significantly if the Retirement Section employees used only the shared printer. Accordingly, we recommend management consider elimination

of the current desktop printers as a means to reduce printing costs.

Conclusion

For the most part, our survey of the three City locations showed there were no redundancies or inefficiencies in printing capabilities and equipment within City Hall, TPD Headquarters, and the Gemini Building. We did however, as described above, identify three City departments where consideration should be given to elimination of current desktop printers. Those three departments were Procurement Services, Risk Management, and Retirement Services. Appropriate recommendations were made as a result. Management was receptive to those recommendations.

Additionally, based on the identification of those three departments, we have concluded the City as a whole would benefit from management’s re-evaluation of desktop printer usage. Accordingly, we recommend management review desktop printer usage in all City facilities and departments in an effort to identify desktop printers that could be eliminated without a significant negative impact on staff productivity.

Question No. 3: Can the makes and models of printers and copiers acquired and used within the City be standardized so as to provide for more efficient maintenance and support efforts?

In answering this question, we first determined that there were approximately 500 different print drivers currently installed on the City’s network. A print driver is software that converts data sent by a computer to a format which allows the applicable information to be printed on a printer. For the most part, each printer make and model uses a unique print driver created for that printer. For

printers connected to a network (e.g., the City’s network), the applicable print drivers must be installed on the network in order for applicable network computers to successfully print.

Multiple Printer Makes and Models

The existence of approximately 500 separate print drivers installed on the City’s network is indicative there is a similar number of printer makes and models within the City. Each of those makes and models must be maintained and supported by the City’s Technology and Innovations (T&I) Department. For example, T&I staff must implement updates and patches to the print drivers for each make and model as those updates and patches become available. Furthermore, T&I staff generally assist City staff in all departments in resolving printing issues as they occur. T&I management indicated that the significant variety in the models and makes of printers makes these maintenance and support tasks more difficult and costly to manage, as T&I staff must familiarize themselves with a relatively large number of different printer makes and models.

A reduction in the number of printer makes and models would allow T&I staff to more efficiently maintain and support the City’s printers. Another potential benefit is that printing materials and supplies likely could be shared (i.e., through authorized budgetary transfers) among different City offices.

Conclusion and Recommendation

Our review showed a potential for efficiencies in maintenance and support of the City’s printers if the makes and models of printers are reduced. Such a reduction should, however, be carefully planned and enacted so as to not result in increased acquisition costs

and a loss of functionality. Accordingly, we recommend T&I work with City departments to develop a list of printers (including MFDs) that meet the functionality required by the different City departments, and which are also economical from an acquisition and maintenance cost perspective. Functional characteristics that should be considered include, but are not limited to, print speed (pages printed per minute), duplexing, color printing, sorting, collating, and binding. The list of recommended printers should be updated on a periodic basis to address changes in makes and models, functionality, costs, and maintenance requirements.

Conclusion

We identified three areas where savings and increased efficiencies could be realized in regard to printing and copying of City documents and records. Those areas relate to the manner in which MFDs are acquired, the use of desktop printers within certain City departments, and the required maintenance and support of City printers. Specifically, we determined that significant savings could be realized by (1) transitioning from leasing to direct purchase of MFDs; (2) eliminating certain desktop printers in Procurement Services, Risk Management, and Retirement Services and re-evaluating desktop printer usage throughout the City; and, (3) to the extent practicable, standardizing the printers and MFDs used within the City.

Acknowledgements

We would like to acknowledge the full and complete cooperation and support of applicable management and staff of T&I, TPD, the various City departments located in

City Hall and the Gemini Building, as well as that of the other City departments that assisted with our survey of MFD usage throughout the City.

Appointed Officials' Response

City Manager

I am pleased to see that the innovative approach to the procurement of and the use of printers and copiers in the City of Tallahassee results in efficiency and effectiveness. I believe the recommendations in this audit will make the City a more efficient and financially responsible operation. The outlined action plan will pay dividends for years to come. I would like to thank the City Auditor's staff for the commitment to provide best possible solutions to enhance the efficiency of City staff. I would also like to thank each City Department for the diligence and effort placed on making each department as productive as possible for the citizens of Tallahassee.

City Treasurer-Clerk

I would like to thank the City Auditor for considering operational efficiencies as part of his audit work plan and for recognizing the variety of business needs across City divisions. Based upon the recommendations made, we will make changes to better use available resources. In particular, the Retirement Division has already begun to change utilization of printers and MFDs. The Risk Management Division will make changes after further evaluating usage and needs to determine the best options for printers, scanners and MFDs.

City Attorney

I would like to thank the City Auditor for his consistent diligence in evaluating the efficiency and effectiveness of city processes and equipment. While the nature of the often confidential and fast-paced legal work performed by the City Attorney's Office may sometimes necessitate the use of multiple desktop printers, the City Attorney's Office is committed to continuous evaluation of whether such use can be limited. The City Attorney's Office, further, will carefully evaluate upon the expiration of its current MFD lease agreement if cost savings can be increased by transitioning from lease to purchase of MFDs. Changes as warranted by the results of these evaluations will be implemented.

Appendix A – Management’s Action Plan		
Action Steps	Responsible Employee	Target Date
Objective A: Change the method of acquisition of MFDs throughout the City.		
City Manager’s Office		
1) As the lease terms for MFDs currently being leased expire, management will review the circumstances related to the replacement of the MFDs. As part of that review, consideration will be given to direct purchasing the replacement MFDs rather than leasing those devices.	Andre Libroth	June 30, 2017
2) When a determination is made that a new MFD is needed (i.e., not a replacement of an existing MFD) a policy will be developed to consider acquiring that MFD through a direct purchasing process.	Andre Libroth	June 30, 2017
City Treasurer-Clerk’s Office		
3) When the lease term for the MFD currently being leased expires in January 2019, management will review the circumstances related to the replacement of the MFD, to include an analysis of the office’s printing, copying, and scanning needs. Consideration will be given to direct purchasing the replacement MFD rather than leasing that device.	Janice Griffin	January 15, 2019
4) When a determination is made that a new MFD is needed (i.e., not a replacement of an existing MFD) consideration will be given to acquiring that MFD through a direct purchasing process.	Janice Griffin	March 31, 2017
City Attorney’s Office		
5) When the lease term for MFD currently being leased expires in April 2019, management will review the circumstances related to the replacement of the MFD, to include an analysis of the office’s printing, copying, and scanning needs. Consideration will be given to direct purchasing the replacement MFD rather than leasing that device.	Ruthie Whitfield	January 28, 2019
6) When a determination is made that a new MFD is needed (i.e., not a replacement of an existing MFD), an analysis will be conducted to compare the cost of purchasing to leasing. The analysis will consider all pertinent costs, to include maintenance and supplies. As the City Attorney’s Office does not anticipate the need for a new MFD prior to the end of the current leases, this analysis will be conducted immediately prior to the expiration of those current leases.	Ruthie Whitfield	January 28, 2019

Objective B: Eliminate certain desktop printers and re-evaluate desktop printer usage throughout the City.		
City Manager’s Office		
1) Procurement Services will implement a plan to eliminate desktop printers in a timelier manner by no longer purchasing ink or toner for such printers.	Andre Libroth	Completed <i>(Management completed this action step prior to issuance of the audit report – completion will be verified as part of the audit follow-up process.)</i>
2) Each departmental manager will be directed to review the usage of desktop printers in their respective areas for the purpose of identifying desktop printers that can be eliminated without undue negative impacts to productivity.	Jonathan Kilpatrick	March 31, 2017
3) Appropriate policy will be developed (based on the unique circumstances of each department’s usage of desktop printers) to eliminate desktop printers that are not efficient.	Andre Libroth	September 30, 2017
City Treasurer-Clerk’s Office		
4) Risk Management will evaluate and consider the elimination of desktop printers and replacing those printers with a more efficient option that meets the department’s needs.	Gail Shuffler	June 30, 2017
5) Retirement Services will evaluate and consider the elimination of desktop printers and replacing those printers with a more efficient option that meets the department’s needs.	Darrell Thompson, Jr.	June 30, 2017
6) Each departmental manager will be directed to review the usage of desktop printers in their respective areas for the purpose of identifying desktop printers that can be eliminated without undue negative impacts to productivity.	Kent Olson	March 31, 2017
City Attorney’s Office		
7) A review will be made as to the usage of desktop printers within the City Attorney’s Office for the purpose of identifying desktop printers that can be eliminated without undue negative impacts to productivity.	Lewis Shelley	Completed <i>(Management completed this action step prior to issuance of the audit report – completion will be verified as part of the audit follow-up process.)</i>

Objective C: Development of a standard list of recommended printers and MFDs.		
City Manager's Office		
1) The Technology and Innovations department will work with City departments to develop a list of recommended printers and MFDs that encompass a variety of functionality. Acquisition, operating, and maintenance cost and efficiencies will be considered when selecting the devices for the list of recommended printers and MFDs.	Tim Lee	March 31, 2017
2) The list of recommended printers will be made available to all City departments.	Tim Lee	March 31, 2017
3) A procedure will be developed to update the list of recommended printers and MFDs on a periodic and regular basis.	Tim Lee	March 31, 2017

Copies of this audit report #1702 may be obtained from the City Auditor's website (<http://www.talgov.com/auditing/auditing-audit-reports.aspx>) or via request by telephone (850 / 891-8397), by FAX (850 / 891-0912), by mail or in person (Office of the City Auditor, 300 S. Adams Street, Mail Box A-22, Tallahassee, FL 32301-1731), or by e-mail (auditors@talgov.com).

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