

**Cell Phone Usage
Performance Audit**

April 2012

DURHAM



1 8 6 9
CITY OF MEDICINE

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CITY OF DURHAM

Memorandum

Date: March 2, 2012
To: Audit Services Oversight Committee
From: Germaine F. Brewington, Director, Audit Services Department
Re: Cell Phone Usage Performance Audit (March 2012)

The Department of Audit Services completed the report on the Cell Phone Usage Performance Audit dated March, 2012. The purpose of the audit was to determine if the City of Durham effectively assesses the adequacy and oversight of cell phone acquisitions and usage. Detailed analysis of cell phone usage for the period from June 2011 until December 2011 was included in the analysis.

This report presents the observations, results, and recommendations of the Cell Phone Usage Performance Audit dated March, 2012. City management concurs with the recommendations made. Management's response to the recommendations is included with the attached report.

The Department of Audit Services appreciates the contribution of time and other resources from employees of the Technology Solutions Department in the completion of this audit.

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Policy ITP-6, "Personal Use of Cellular Telephones and Pagers" established by the Department of Technology Solutions governs the issuance of cell phones and the monitoring of their usage. The purpose of this policy is to provide a centralized system for the administration and processing of cellular telephone and pager service requests and to regulate personal use of City owned cellular phones.

Issuing cellular telephones benefits the City by allowing employees to perform certain job duties more efficiently and effectively. The City has cell phones serviced by two carriers, Verizon and Sprint/Nextel. The City had on average 510 active cell phones per month for the period of June 2011 to December 2011 (an average of 348 cell phones with Verizon Wireless and 162 cell phones with Nextel).

The City has different types of calling plans with both Verizon and Nextel. All of these individual plans are consolidated into "share/pool" plans. Consolidating cellular users into a "share/pool" plan allows the City to optimize its general allowance minutes by sharing total minutes between all cellular users.

With **Verizon**, departments can choose from two individual calling plans:

- i. 200 minutes calling plan*
- ii. 400 minutes calling plan with unlimited data usage*

Both the individual plans offer unlimited mobile-to-mobile, unlimited night and weekend minutes, and no roaming or long distance charges. All voice plans also include voicemail, caller ID, call waiting, 3-way calling and call forwarding. Activation fees and early termination fees are waived for Government subscribers. All minutes of these individual plans are consolidated into one "share/pool" plan. The City had on average 95,460-pooled minutes per month over the period of June 2011 to December 2011. The City pays Verizon based on the number of cell phones on each plan. Therefore, if you add an additional cell phone this increases the cost to the City as well as the available pool of minutes in the share/pool plan.

With **Nextel**, departments can choose from the following different individual plans:

- i. National Team Share Add On*
- ii. National Team Share 400 Minutes*
- iii. 200 Minutes Biz Essential Add On 7PM*
- iv. Biz Essential 400 Minutes 7PM*
- v. Biz Essential 1,000 Minutes*
- vi. Sprint Free Incoming 500 Minutes*
- vii. IDEN 400 Minutes Black Berry Plan*
- viii. IDEN 1,000 Minutes Black Berry Plan*

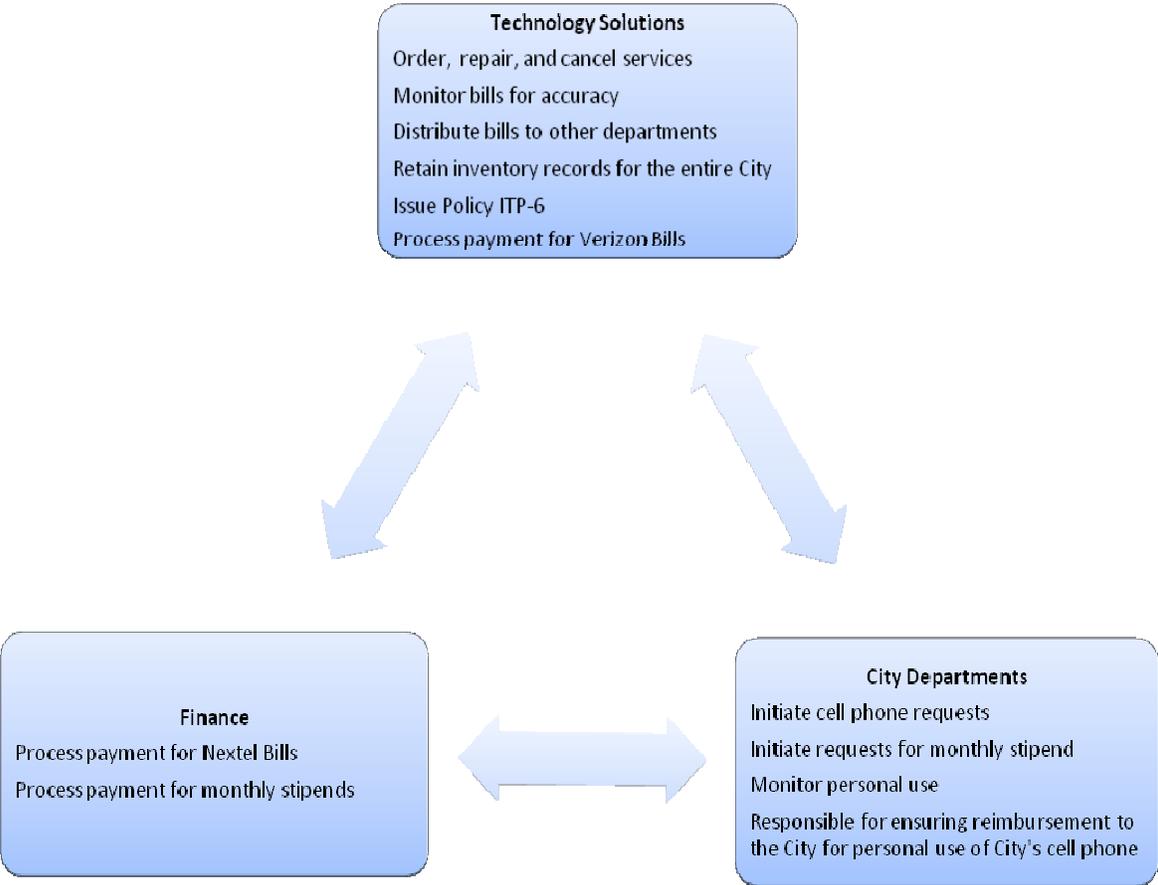
All of the above individual plans are consolidated into two “share/pool” plans with Nextel. The first “share/pool” plan on average had approximately 34,171 minutes per month during the period of June 2011 to December 2011. The second “share/pool” plan had on average 7,000 minutes from June 2011 to October 2011. The Department of Technology Solutions reduced the pooled minutes by 1,000 minutes in November 2011, for the second plan.

The City paid approximately \$110,223 to Verizon and \$69,691 to Nextel, for a total of \$179,914 for minutes and data usage for a period of June 2011 to December 2011.

Employees also have the option of receiving a \$30.00 monthly stipend from the City for using a personal cellular phone to conduct City business.

BACKGROUND INFORMATION

The flow chart below describes the roles of the different departments in the cellular phone acquisition and usage process.



Purpose

The purpose of the audit was to determine if the City of Durham effectively assesses the adequacy and oversight of cell phone acquisitions and usage. Detailed analysis of cell phone usage for the period from June 2011 until December 2011 was included in the analysis.

We conducted this performance audit in accordance with generally accepted governmental auditing standards. Those standards require that we plan and perform the audit to obtain sufficient and appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Results in Brief

Processes that work well

- Adequate controls exist over issuance of cell phones to City employees.
- Overall, department representatives stated that they monitor personal usage within their respective departments.

Areas for improvement

- The Department of Technology Solutions should strengthen oversight controls over overall usage as well as usage by employee.
- Monitoring procedures should be designed to ensure that employees are not receiving both a monthly stipend as well as a City cell phone.
- The Technology Solutions intranet site and forms need updating.

Objectives

The objectives of the audit were to determine if:

- Overall cell phone usage is cost efficient to the City of Durham;
- Adequate controls are in place to monitor personal usage of cell phones; and
- Procedures for issuance of cell phones to City employees according to Policy ITP-6 are adhered to.

Scope

The scope of the audit included examining all current practices at the City as they relate to acquisition and usage of City issued cell phones. The detailed analysis of usage was performed for a period June 2011 to December 2011. While the detailed tests only covered approximately seven (7) months, the results are valid for the City.

Methodology

Audit staff performed the following tests and procedures in order to achieve the objectives of the audit:

- Interviewed employees responsible for issuance and oversight of City issued cell phones at the Department of Technology Solutions;
- Determined the total cost of City issued cell phones for the period of June 2011 to December 2011 (Verizon and Nextel);
- Analyzed base plan costs to actual costs for City issued cell phones (Verizon and Nextel) for the period of June 2011 to December 2011;
- Analyzed overall usage by share/pool plans for both Verizon and Nextel phones;
- Analyzed usage by phone for selected number of minutes per month for cell phones serviced by Verizon;
- Determined if employees who have a significant and recurring need are assigned cell phones;
- Obtained a list of employees that receive a monthly stipend from the City for using personal cell phones for City business;
- Verified that employees who receive a stipend are not assigned a City cell phone as well;
- Surveyed employees responsible for monitoring usage at several City departments;
- Verified the adequacy of controls over authorizing and issuing of City cell phones to employees; and
- Reviewed inventory records of City issued cell phones.

During the audit, the staff also maintained awareness to the potential existence of fraud.

The Department of Technology Solutions should strengthen oversight controls for overall usage as well as usage by employee.

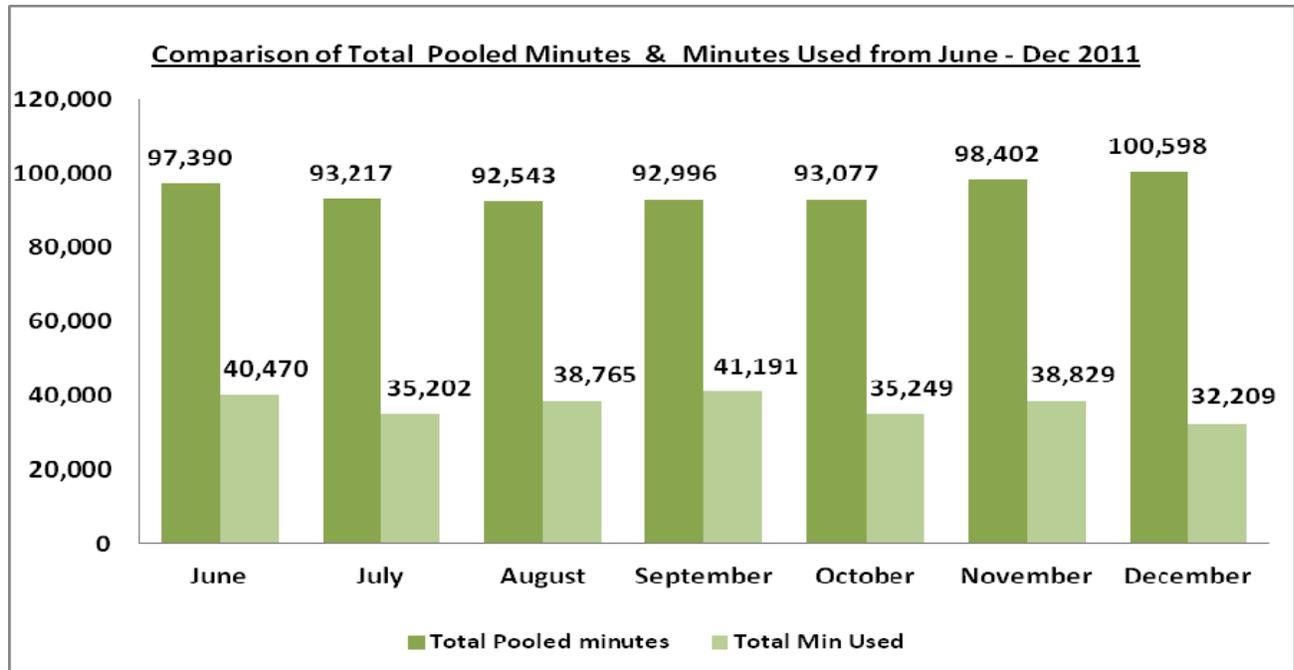
Audit services staff analyzed usage for City issued cell phones serviced by Verizon for the period of June 2011 to December 2011 in a variety of ways.

Table 1: Summary of Gross Cell Phone Usage City-Wide (Verizon)

| Month | Total Number of Phones | Total Pooled Minutes | Total Minutes Used | Unused Minutes | % of Unused Minutes |
|----------------|------------------------|----------------------|--------------------|----------------|---------------------|
| June | 347 | 97,390 | 40,470 | 56,920 | 58% |
| July | 342 | 93,217 | 35,202 | 58,015 | 62% |
| August | 344 | 92,543 | 38,765 | 53,778 | 58% |
| September | 351 | 92,996 | 41,191 | 51,805 | 56% |
| October | 348 | 93,077 | 35,249 | 57,828 | 62% |
| November | 348 | 98,402 | 38,829 | 59,573 | 61% |
| December | 353 | 100,598 | 32,209 | 68,389 | 68% |
| Average | 348 | 95,460 | 37,416 | 58,044 | 61% |

Employees that have Verizon City issued cell phones on an average only use 39% of total available minutes. Opportunity exists for the Department of Technology Solutions to explore alternative plans with a lower level of pooled minutes.

Graph 1: Total Available Pooled Minutes Compared to Total Minutes Used (June 2011 to December 2011/ Verizon)



The graph above shows that City issued cell phone users consistently use significantly fewer minutes than available.

Table 2: Usage by Phone for Selected Number of Minutes per Month (June 2011 to December 2011)

| Number of Minutes Used Per Month | Number of Phones | | | | | | | |
|----------------------------------|------------------|------------|------------|------------|------------|------------|------------|------------|
| | June | July | August | September | October | November | December | Average |
| 0 | 47 | 53 | 56 | 64 | 66 | 68 | 67 | 60 |
| 1-15 | 52 | 56 | 54 | 49 | 48 | 40 | 66 | 52 |
| 16-30 | 38 | 41 | 30 | 31 | 44 | 47 | 29 | 37 |
| 31-45 | 41 | 32 | 32 | 33 | 31 | 25 | 22 | 31 |
| 46-60 | 27 | 14 | 19 | 23 | 19 | 21 | 27 | 21 |
| 61-120 | 48 | 54 | 53 | 51 | 57 | 59 | 56 | 54 |
| 121-240 | 42 | 49 | 53 | 55 | 37 | 40 | 50 | 47 |
| 241-360 | 20 | 19 | 24 | 13 | 23 | 23 | 16 | 20 |
| Over 360 | 32 | 24 | 23 | 32 | 23 | 25 | 20 | 26 |
| Total | 347 | 342 | 344 | 351 | 348 | 348 | 353 | 348 |

The table on page 10 shows that on average one hundred and twelve (112) City issued cell phones were used less than 15 minutes each month. Cell phone assignments to employees that have very low usage should be reviewed and an alternative means of communication should be investigated for those employees. The average cost of underutilized phones to the City is captured below.

Table 3: Cost of Underutilized City Issued Cell Phones (Used Less Than 15 Minutes)

| Month | Number of Cell Phones | Number of Cell Phones Using Data | Total Available Minutes in Underutilized Plan | Total Monthly Charges to the City |
|----------------|-----------------------|----------------------------------|---|-----------------------------------|
| June | 99 | 23 | 24,760 | \$ 5,618.43 |
| July | 109 | 24 | 29,010 | \$ 4,299.73 |
| August | 110 | 26 | 29,450 | \$ 4,813.07 |
| September | 113 | 26 | 29,902 | \$ 4,635.00 |
| October | 114 | 30 | 31,050 | \$ 4,689.61 |
| November | 108 | 25 | 29,289 | \$ 4,631.30 |
| December | 133 | 32 | 35,724 | \$ 7,037.25 |
| Average | 112 | 27 | 29,884 | \$ 5,103.48 |

It cost the City approximately \$35,724.00 to service the underutilized City issued cell phones for the period of June 2011 to December 2011.

Audit services staff analyzed usage for City issued cells phones serviced by Sprint/Nextel for the period of June 2011 to December 2011 in a variety of ways.

The City has two share/pool plans with Sprint/Nextel. Audit staff could not access the Sprint/Nextel bills electronically, which limited somewhat the types of detailed analyses that were performed.

Table 4: Summary of Gross Cell Phone Usage City Wide (Sprint/Nextel) for Shared Pool Plan 1

| Months | Minutes Available | Minutes Used | Unused Minutes |
|----------------|-------------------|---------------|----------------|
| June | 34,400 | 20,819 | 13,581 |
| July | 34,800 | 17,795 | 17,005 |
| August | 34,800 | 21,838 | 12,962 |
| September | 33,400 | 22,479 | 10,921 |
| October | 33,000 | 20,448 | 12,552 |
| November | 34,000 | 23,937 | 10,063 |
| December | 34,800 | 18,445 | 16,355 |
| Average | 34,171 | 20,823 | 13,348 |

Audit staff considered the impact on meeting the needs of the users if share/pool plan 1 (one) was reduced by 5000 minutes. Based on the analysis, potential costs savings can be realized under share/pool plan one.

Graph 2: Pool One Shared Minutes Reduced by 5,000 (Nextel/Sprint)

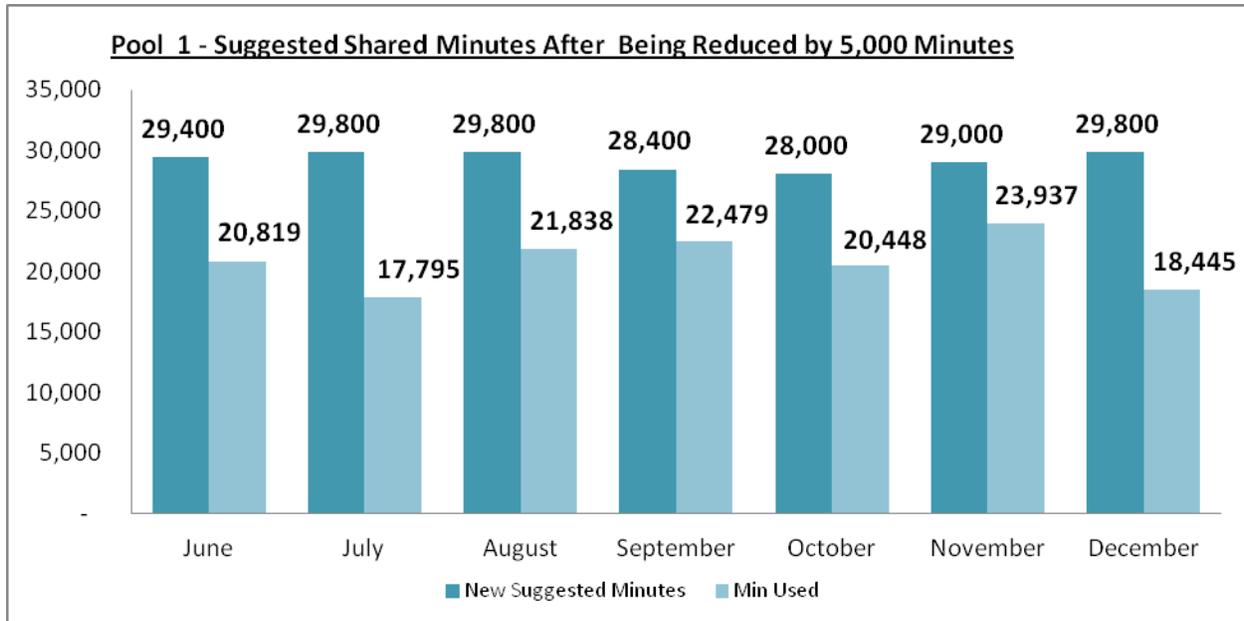


Table 5: Summary of Gross Cell Phone Usage City Wide (Sprint/Nextel) for Shared Pool Plan 2

| Months | Minutes Available | Minutes Used | Unused Minutes |
|----------------|-------------------|--------------|----------------|
| June | 5,601 | 3,409 | 2,192 |
| July | 5,600 | 3,192 | 2,408 |
| August | 7,000 | 3,556 | 3,444 |
| September | 7,000 | 4,364 | 2,636 |
| October | 7,000 | 3,943 | 3,057 |
| November | 6,000 | 4,766 | 1,234 |
| December | 6,000 | 4,296 | 1,704 |
| Average | 6,314 | 3,932 | 2,382 |

Table 6: Summary of Gross Cell Phone Usage for a Single Phone Not Part of the Offered Shared Pool Plans with Nextel/Sprint

| Months | Minutes Available | Minutes Used | Excess Minutes Used |
|----------------|-------------------|--------------|---------------------|
| June | 400 | 832 | 432 |
| July | 400 | 788 | 388 |
| August | 400 | 566 | 166 |
| September | 400 | 1006 | 606 |
| October | 400 | 364 | -36 |
| November | 400 | 587 | 187 |
| December | 0 | 306 | 306 |
| Average | 343 | 636 | 293 |

At present, one Sprint/Nextel cell phone is not part of the two offered shared pool plans. The user of this phone usually exceeds the minutes available, resulting in additional charges for excess minutes used. The City incurred additional charges of approximately \$883.00 for the period of June 2011 to December 2011 for this cell phone. The Department of Technology Solutions should explore options to incorporate this cell phone into the other share/pool plans to minimize paying additional charges for using extra minutes over the allotted minutes.

Monitoring procedures should be designed to ensure that employees are not receiving both a monthly stipend as well as City cell phone.

According to City policy ITP-6, “Employees who have a legitimate reason for using their own personal cellular phone to conduct City business may be authorized a monthly stipend”. The current policy does not explicitly address the responsibility of the departments to reevaluate the employee’s need to continue to receive a stipend on an ongoing basis. In order to understand the current practices surrounding authorization and monitoring of cell phone stipends audit staff emailed a questionnaire to departments that currently provide stipends to some of their employees. The departments were asked to describe the process of authorizing and monitoring stipends and specify: 1) if they re-evaluate the employee’s need to receive a stipend on an ongoing basis; and 2) if this review is documented in writing. Eight departments responded to the questionnaire. In general, departments have an adequate process to authorize a stipend. The departments overall do not monitor actual usage of personal phones to conduct City business. Most of the departments do not reevaluate an employee’s need to receive a stipend on a regular basis.

In addition to the above questions, each department was requested to answer the following specific questions for a sample of employees in their respective departments that receive a stipend:

1. Why is this employee receiving a stipend?
2. How often is the individual actually contacted on their personal cell phone for City business?
3. Are employees/supervisors required to maintain written documentation concerning the use of personal cell phone to conduct City business?
4. Is it necessary for the employee to receive a stipend?

According to the departments, fifty-four of the fifty-eight employees selected in the sample were contacted daily on their personal phone to conduct City business. Only four of the fifty-eight employees were contacted once a month to several times a month on their personal cell phone to conduct City business. The departments indicated that it was necessary for all of the fifty-eight employees to receive a stipend. None of the departments require employees and supervisors to maintain written documentation concerning the use of personal cell phones for City use.

The City had two hundred and forty nine (249) employees that received a \$30.00 monthly stipend as of December 2011. The total cost to the City of the stipend is \$7,470 dollars per month.

Audit services staff compared the list of employees who receive a stipend to the list of employees who are issued City cell phones. The following are the results of the analysis:

Verizon:

- Seven employees who receive a monthly stipend from the City also appeared on the list of employees with City issued Verizon cell phones. Out of these seven employees:
 - Three employees stated that they did not have a City cell phone. However, these phones are active, which could imply that the information pertaining to assignment of City cell phones is not accurate in the Verizon records.
 - Three employees confirmed that they have cell phones assigned to them. All of these employees were notified to reimburse the City the total amount of stipend allowance received by them during the time they had access to a City issued cell phone.
 - One employee has a legitimate reason according to their director to receive a stipend as well access to a City issued cell phone. The cell phone is specifically for conducting business related to a special task force project. The stipend is for conducting all other City business using his/her personal phone.

Sprint/Nextel:

- Two (2) employees who receive a monthly stipend from the City also appeared on the list of employees with City issued Sprint/Nextel cell phones.
 - For one cell phone, the assignment information is not accurate in the Sprint/Nextel records and the Department of Technology Solution's records.
 - One cell phone is still active. Audit staff called the cell number to verify if it was active; and this phone still had the voice message of the employee that was issued the phone.

Adequate controls exist over issuance of cell phones to City employees.

City Policy ITP-6 states that, "When a department head determines that an employee needs cellular or pager services, a request must be submitted to the Department of Technology Solutions. A department head must sign this request". The Department of Technology Solutions will acquire the requested cell phone.

Adequate control exists over approval of cell phone requests by departments. Audit staff judgmentally selected a sample of nineteen (19) phones issued and examined the approved, signed Request for Cell Phones forms. No exceptions were noted.

The Technology Solutions intranet site and forms need updating.

City Policy ITP-6 states that, “The Technology Solutions Department will post the cell phone single rate plans and the Cell Phone Allowance Form on the City’s intranet site”. The site does not currently display the most recent cell phone plan information. The web page only lists Verizon as the City cell phone provider and does not mention Sprint/Nextel. The Cell Phone Allowance Stipend Form is not on the website as stated in the Policy. The Request for Cellular Service Form currently available on the web page needs revision. It does not list the different plan types available.

Overall department representatives stated that they monitor personal usage within their respective departments.

Audit staff emailed a questionnaire to department representatives responsible for monitoring personal cell phone usage. Seventeen (17) approvers responded to the questionnaire. The seventeen (17) approvers represented fifteen (15) City departments. Out of seventeen (17) representatives who responded to the survey, only two (2) stated they did not review phone bills. One of the representatives did not receive a bill on a monthly basis and one other representative stated they were not aware it was their responsibility to monitor the bills for personal usage.

Recommendation 1

The Department of Technology Solutions should implement oversight controls by performing the following:

- Analyzing overall usage patterns annually and re-evaluating the City’s current cellular contracts;
- Developing a process immediately in conjunction with other departments that use City issued cell phones to monitor usage by employee:
 - Annually analyze usage by employees;
 - Inform the departments of employees that underutilize the cell phone and assign them the responsibility to review on an individual basis, the continuing need for cell phones for these employees;
 - Help City departments develop a strategy to provide these employees with an alternative method of conducting City business when necessary; and
- Establishing procedures immediately to monitor monthly stipends received by employees.

In addition, City Policy ITP-6 should be revised to reflect the responsibilities of the Department of Technology Solutions and other user departments regarding monitoring of overall usage of City issued cell phones as well as stipends. The Policy should also outline a process to ensure information pertaining to reassignment of cell phones within departments is communicated to the Department of Technology solutions in order to help them maintain accurate records.

The Technology Solutions Department should ensure that all concerns of this audit are addressed with utmost priority.

Recommendation 2

The Department of Technology Solutions should update the following:

- Information on their intranet site;
- Request for Cellular Service Form;
- Assignment of cellular user information with Verizon and Sprint/Nextel; and
- The list of employees with City cell phones maintained by the Department of Technology Solutions to ensure the list is accurate.

Memo to: Germaine F. Brewington, Director of Audit Services
From: Kerry Goode, CIO/Director, Technology Solutions Department
Date: April 30, 2012
Subject: Management's Response
Cell Phone Usage Performance Audit (April 2012)

The following is management's response to the Cell Phone Usage Performance Audit dated March 2012.

Recommendation 1

The Department of Technology Solutions should implement oversight controls by performing the following:

- Analyzing overall usage patterns annually and re-evaluating the City's current cellular contracts;
- Developing a process immediately in conjunction with other departments that use City issued cell phones to monitor usage by employee:
 - Annually analyze usage by employees;
 - Inform the departments of employees that underutilize the cell phone and assign them the responsibility to review on an individual basis, the continuing need for cell phones for these employees;
 - Help City departments develop a strategy to provide these employees with an alternative method of conducting City business when necessary; and
- Establishing procedures immediately to monitor monthly stipends received by employees.

In addition, City Policy ITP-6 should be revised to reflect the responsibilities of the Department of Technology Solutions and other user departments regarding monitoring of overall usage.

The Technology Solutions Department should ensure that all concerns of this audit are addressed with the utmost priority.

Management's Response:

We concur. Management is in full agreement with the recommendation and has been performing some of this recommendation before the audit.

The City currently uses the GSA Federal Supply Schedule for Verizon Wireless and the service agreement is locked in for specified terms. Technology Solutions currently reviews the service contracts annually for opportunities to increase value to the City. Technology Solutions will continue to review the service contract annually and make recommendations to Management if the City needs to consider another value-added contractual agreement.

Technology Solutions currently notifies each department head/designee of cell phone usage in a written monthly report provided by Verizon. Each department has a designated employee to receive the Verizon Wireless memo bills via email. The Sprint/Nextel invoices are distributed via interoffice mail addressed to the designee for that department. Cell phone usage information is included in the monthly invoices. The designated employee has the following responsibilities which will be included in the

revised policy. The designated employee assigned to receive the cellular invoices for each department has the following responsibilities:

- Review the invoice for any extra cost (i.e., text messaging, if there is not a text plan)
- Review for unauthorized downloads of ring tones, games, etc.
- Review for Cell Phone Assignment – The designated employee is to review the invoice for accuracy in the cell phone assignment.
- Review for Phone Usage – To ensure that employees are reconciling the invoice, highlighting personal calls for reimbursement, and no usage. If the cellular users have made personal calls, then they are to reimburse the City for those personal calls. If a cell phone has no usage, then the department head or designee must submit in writing justification for keeping the cell phone. If the department has good justification for keeping a cell phone, then Technology Solutions will look into prepaid options for cellular service.

To ensure that the most efficient number of phones are being carried and paid for by the City, by June 30, 2012 Technology Solutions will perform a current analysis of usage to assist the department in identifying low usage and make any identified changes needed based on the analysis and input from the departments immediately. Technology Solutions recognizes that departments currently issue some cell phones for emergency response only (low usage). Therefore, department directors will be required to justify the continued need for cell phones for those employees who have low usage by responding via the new response process (SharePoint Workflow in development).

Technology Solutions currently works with departments to provide alternative strategies for cost reduction for phone service. Technology Solutions will enhance this process through bi-annual meetings with departments (TS House Calls).

Technology Solutions is in the process of revising the cell phone policy to reflect the responsibilities of the Technology Solutions Department and other user departments regarding monitoring of overall usage.

An example of a recent analysis provided the following changes: In November 2011, TS recommended moving 94 broadband cards from the GSA contract to the State contract. The monthly broadband cost on the GSA contract \$43.01. By moving the account from the Federal price plan to the State, the City pays \$37.99 monthly. The monthly savings will be \$471.88; a yearly savings will be \$5,662.56.

Technology Solutions will send a quarterly report of those employees receiving a stipend and those employees having City issued cell phone to each department director/designee and requests a written response from the department as to the validity of the reports. In addition, Technology Solutions will review the findings from each department. If Technology Solutions finds exceptions, we will notify the departments and take corrective action immediately.

Recommendation 2

The Department of Technology Solutions should update the following:

- Information on their intranet site;
- Request for Cellular Service Form; and
- Assignment of cellular user information with Verizon and Sprint/Nextel
- The list of employees with City cell phones maintained by the Department of Technology Solutions to ensure the list is accurate

Management's Response:

We concur. Management is in full agreement with the recommendation.

Technology Solutions has updated and posted the following forms on the intranet:

- Verizon Wireless cellular request form
- Sprint/Nextel cellular request form
- The cell phone allowance form
- Technology Solutions will maintain a list of all City issued and stipend recipients on the department's SharePoint site.
- Technology Solutions will send a cellular service report to each department monthly

To ensure that the forms are continuously updated when rate plans change, TS will update the standard operating procedures to require that these forms are updated on the Intranet promptly in the future.