



April 30, 2007

LYNN MALCOLM  
VICE PRESIDENT, CONTROLLER

ROBERT L. OTTO  
VICE PRESIDENT, CHIEF TECHNOLOGY OFFICER

SUBJECT: Audit Report – Headquarters Cellular Services  
(Report Number IS-AR-07-011)

This report presents the results of our self-initiated audit of the headquarters cellular services and devices (Project Number 07BG001IS000). Our objective was to determine the effectiveness of the U.S. Postal Service's utilization and management of cellular services and devices managed by headquarters units.

### **Background**

Cellular technology, like other information technology (IT), has advanced rapidly in recent years. These technologies use analog or digital short-wave signals in conjunction with nearby transmitters, providing wireless telecommunication capabilities for subscribers. Pagers, once a "receive only" telecommunications device, now offer two-way capabilities. Cellular telephones offer a broad spectrum of features such as paging, text messaging, Internet access, and email; and the ability to capture, store, and transmit digital images. Cellular broadband cards (using cellular towers) expand the mobility and functionality of computer devices. In addition, [REDACTED]™ devices offer wireless email, cellular telephone features, and extended browser capabilities.

The Postal Service, [REDACTED] located in Raleigh, North Carolina, administers the national cellular service agreements. Responsibilities for managing and monitoring cellular services and devices are decentralized and performed by headquarters, area, district, and facility-level personnel. Each Postal Service entity determines its individual business requirements for wireless communications. Headquarters and area offices, in addition to other headquarters facilities, are responsible for managing and tracking inventories of their cellular devices.

Typically, inventory records are managed using spreadsheets, although a few sites use the Asset Inventory Management System (AIMS).<sup>1</sup>

At our request, [REDACTED] issued a November 1, 2005, Request for Action (RFA) notice to area office Information Technology Managers and headquarters units requesting inventories of active and inactive cellular devices. In addition, U.S. Postal Service Office of Inspector General (OIG) management followed up with a memorandum to headquarters' Postal Career Executive Service (PCES) managers in November 2005 requesting the same. This audit report utilizes the information obtained for headquarters pager devices through this RFA and the associated PCES memorandum.

### **Objective, Scope, and Methodology**

Our objective was to determine the effectiveness of the Postal Service's utilization and management of cellular services and devices managed by headquarters units. During our review, the Postal Service awarded a contract to [REDACTED], Incorporated, ([REDACTED]) to manage and monitor all mobile devices except pagers. As a result, we revised the original scope of our audit to exclude cell phones, [REDACTED] devices, and broadband cards, and focused entirely on pagers managed by headquarters units in an effort to identify cost savings by eliminating unnecessary pagers. We determined we would wait for the contractor to conduct work over a period of time and assess their performance at a later date.

To accomplish our objective, we compiled headquarters-related inventories of cellular devices from the results of the November 1, 2005, RFA and the supplemental OIG request. Based on responses to the RFA, the universe of pagers managed at the headquarters level totaled 392.<sup>2</sup> We collected, reviewed, and analyzed monthly bills from October 2005 through November 2006 for 184 of these pagers. We estimated costs for the remaining 208 pagers based on available billing information.

To determine cost savings for pagers, we analyzed billing information from the four companies that provided pager services from October 2005 through November 2006. We calculated the average monthly cost for each pager and applied it against the percentage telecommunication managers<sup>3</sup> agreed they could reduce. To test usage, we called 199 pagers and left a callback number.<sup>4</sup> We determined 184 pagers out of

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<sup>1</sup> The AIMS automates the collection of most IT assets and was developed to function as the official repository for tracking IT assets.

<sup>2</sup> We did not include U.S. Postal Inspection Service pagers in the universe of 392. During our review, the Postal Inspection Service identified 67 additional pagers not included in our universe.

<sup>3</sup> [REDACTED] managers include the Manager, Distributed Computing Environment, and the Program Manager, Postal Radio Frequencies in [REDACTED]. Both managers agreed with our pager assessments in the previous audit and stated they would like to eliminate 95 percent of all pagers. Any remaining pagers would be minimal, and could be managed in-house.

<sup>4</sup> OIG auditors would have called additional pagers. However, the Manager, Corporate Information Security, requested we cease the test because of concerns regarding potential disruptions to operations. In addition, we discarded the results for 15 pagers because we did not have corresponding invoices.

the 199 called were valid. We interviewed pager users who returned our call to ask if they had multiple devices and whether eliminating their pagers would harm their productivity. Based on the responses received over the following 7 days, 27 percent (50 of 184) of pager users returned our call and 73 percent (134 of 184) did not. However, based on management's agreement that they could reduce pagers nationwide by 95 percent, we determined the overall savings accordingly.

We conducted this audit from October 2006<sup>5</sup> through April 2007 in accordance with generally accepted government auditing standards and included such tests of internal controls as we considered necessary under the circumstances. We assessed the reliability of the data for 184 of the 392 pagers and determined the information was sufficiently reliable to meet our audit objective. We discussed our observations and conclusions with management officials on March 20, 2007, and included their comments where appropriate.

### **Prior Audit Coverage**

The OIG issued an audit report titled, *Audit of Cellular Services* (Report Number IS-AR-07-010, dated March 29, 2007), which indicated the Postal Service could improve the management of cellular services and devices at field locations/offices. Our audit showed the Postal Service has opportunities to capture savings at field office locations by implementing centralized management control practices, performing comprehensive inventories and needs assessments, and improving inventory and usage review practices. This would help eliminate unnecessary services and devices in field offices. Excluding headquarters, we estimated cost savings opportunities for reducing unnecessary devices (cell phones, [REDACTED] devices, cellular broadband cards, and pagers) with a total financial impact of \$6.8 million. During the review period, the Postal Service awarded a contract for managing all cell phones, [REDACTED] devices, and broadband cards. We made three recommendations to improve controls over managing and monitoring cellular services and devices, two of which were significant. Management agreed with the recommendations.

The OIG issued an audit report titled, *National Voice Services — Savings Opportunities* (Report Number IS-AR-05-016, dated September 30, 2005), which discussed how the Postal Service could capture savings by performing a comprehensive inventory and assessment of local telephone line needs in accordance with existing policy. We identified costs for unneeded telephone lines with a total financial impact of \$9.9 million. We made five recommendations to improve controls over managing and monitoring local telephone resources, three of which were significant. Management agreed with all of our recommendations and completed action on them. Management implemented specific procedures for disconnecting unneeded lines identified during our audit.

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<sup>5</sup> We conducted this audit subsequent to our audit of cellular services (Project Number 05BG020IS000) and used the information gathered from the November 2005 RFA and the supplemental OIG memorandum to headquarters PCES managers.

Management also established a process for reviewing monthly bills before payment, as required by Handbook AS-873,<sup>6</sup> [REDACTED], and established a process to monitor and review telephone line change activity when they deploy new technology. Postal Service managers created a comprehensive telephone line inventory and reassessed their local telephone needs. They disconnected over 4,000 telephone lines and reported the overall results to the OIG. We closed the last recommendation after the Postal Service awarded a contract ([REDACTED]) to centralize the management and monitoring of telecommunication services.

## **Results**

The Postal Service can improve the management of cellular services and devices by eliminating unused and obsolete pagers, resulting in savings of \$122,772 over the next 2 years. The Postal Service has not included pagers in its contract with [REDACTED] to centralize management and monitoring of telecommunication services and devices; therefore, management and monitoring of pagers will not be optimized in the same manner as other cellular services and devices. Maintaining pagers within the Postal Service inventory will require in-house management and monitoring to continue. As a result, opportunities exist to capture savings by eliminating unused pagers that are largely obsolete. We estimate cost savings opportunities for pagers provide a total monetary impact of \$122,772.

### **Management of Pager Services and Devices**

The Postal Service could improve their management of pager services and devices. Currently, the Postal Service is paying for pagers they no longer need. This is due to inconsistent cellular management practices and outdated wireless communications policies. Improving these areas will help identify and reduce costs for pager services and devices.

Currently, responsibilities for managing and monitoring pager services and devices are decentralized. Each headquarters unit manages their own inventory and accounting practices vary for tracking these devices. Typically, each office manages and monitors their pagers with complete autonomy, which produces inconsistent results. For example, practices vary for asset tracking, user needs assessments, and invoice approval. Some offices manage pagers using spreadsheets, while others use the AIMS. Since the Postal Service did not include pagers in their [REDACTED] contract, optimization of pagers will not occur unless management takes specific actions. Continuing the use of pagers will require a separate, in-house system for managing and monitoring. Maintaining a separate process for pagers would be less efficient and may lead to confusion and additional waste.

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<sup>6</sup> Handbook AS-873, [REDACTED], Section 8-8 provides the specific policies currently in place, dated October 2004 (updated with *Postal Bulletin* revisions through September 29, 2005).

Our review and analysis of invoices for pagers over a 12-month period revealed opportunities for the Postal Service to save money. We analyzed pager usage by calling 184 of 392 pagers and providing a callback number. Based on the responses received over a 7-day period, 27 percent of pager users returned our call and 73 percent did not. We determined the overall savings based on the nonresponse rate by applying the average monthly pager cost to the overall pager universe and projecting it over 24 months.<sup>7</sup>

The pager analysis identified in the OIG draft report *Audit of Cellular Services*, dated March 20, 2007, showed 93 percent of pagers were not being used. In addition, Postal Service management agreed that pagers are obsolete in most instances, which is why they did not include them in the management and monitoring contract. These managers stated they believe they can eliminate 95 percent<sup>8</sup> of pagers without adversely affecting performance. The remaining pagers would be minimal, as would their management and monitoring requirements. Based on these factors, we estimate the Postal Service could save \$122,772. This represents funds put to better use that we will report in our *Semiannual Report to Congress*.

We also noted that some pagers the Postal Service identified had been turned off prior to the audit. We commend the Postal Service for this action and estimate it will save \$15,688 over a 3-year period.<sup>9</sup> We will not attribute this savings to the OIG in this report.

### **Recommendation**

We recommend the Vice President, Chief Technology Officer, direct the Manager, Telecommunication Services, to:

1. Eliminate the unused pagers this audit identified.

### **Management's Comments**

Management agreed with our recommendation and monetary impact of \$122,772 representing funds put to better use. Management stated that pagers not being utilized should be eliminated from the Postal Service inventory. The Postal Service plans to eliminate these pagers by September 28, 2007. Management's comments, in their entirety, are included in the Appendix C of the report.

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<sup>7</sup> We provide details of the cost savings analysis in Appendices A and B.

<sup>8</sup> Postal Service managers would like to leave 5 percent of the current pager inventory available for special circumstances where other devices (cell phone/ ) are not appropriate. Examples given include geographical areas where other devices prove unreliable.

<sup>9</sup> Estimated savings include 1 year for savings achieved during the audit period and projecting 2 years into the future.

**Recommendation**

We recommend the Vice President, Controller, and the Vice President, Chief Technology Officer, direct the area offices, in coordination with the Manager, Telecommunication Services, to:

- 2. Reassess current needs for the remaining pagers in the Postal Service inventory and eliminate unnecessary devices.

**Management's Comments**

Management agreed with our recommendation and monetary impact. Management stated that paging technology is fast becoming obsolete and, in most cases, can and will be eliminated. The Postal Service plans to complete the reassessment of pagers by November 30, 2007.

**Evaluation of Management Comments**

Management's comments are responsive to recommendations 1 and 2, and actions planned should correct the issues identified in the finding.

The OIG considers recommendation 2 significant, and therefore requires OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective action is completed. This recommendation should not be closed in the follow-up tracking system until the OIG provides written confirmation that the recommendation can be closed.

We appreciate the cooperation and courtesies provided by your staff. If you have any questions, or need additional information, please contact Gary C. Rippie, Director, Information Systems, or me at (703) 248-2100.

E-Signed by Darrell E. Benjamin,   
VERIFY authenticity with ApproveIt

Darrell E. Benjamin, Jr.  
Deputy Assistant Inspector General  
for Revenue and Systems

Attachments

- cc: H. Glen Walker
- Harold E. Stark
- Gregory D. Larrabee
- Larry K. Wills
- Warren Schwartz
- Deborah A. Kendall

## APPENDIX A

### FUNDS PUT TO BETTER USE FOR A 2-YEAR PERIOD

Pagers	Funds Put To Better Use
	2 Years In The Future
Savings based on the percentage of pagers called with no response: base case <sup>10</sup>	\$ 92,206
Additional savings attributable to eliminating 95 percent of all pagers (difference between base case and 95 percent of all)	30,566
<b>Total Funds Put To Better Use</b>	<b>\$122,772</b>

We also note the additional savings attributable to Postal Service’s action to eliminate 26 pagers prior to our audit. We present that savings based on a 3-year period (1 year already achieved during the period audited plus the 2 future years assumed above):

### SAVINGS ATTRIBUTABLE TO POSTAL SERVICE ACTIONS

Pagers	Audit Period Savings	Future Savings	Total Postal Service Initiated Savings
Pagers identified and turned off prior to audit analysis period	\$5,229	\$10,459	\$15,688

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<sup>10</sup> Base case represents the analysis from our sample universe that was tested by calling each pager to determine use or non-use.

## APPENDIX B

### METHODOLOGY AND PROJECTIONS FOR THE AUDIT OF HEADQUARTERS CELLULAR SERVICES AND DEVICES

The billing information we received covered the period December 1, 2005, through November 30, 2006. However, some pagers had fewer than 12 months of use during that period. To calculate funds put to better use, we required an amount that was equivalent to a full year of use. We developed 1-year costs for all pagers using the steps below.

1. We sorted pagers into service provider groups, using the area code as an indicator when no provider was listed in the data.
2. For each pager in service for some part of the year, we extrapolated the cost for a full year based on the known monthly amounts and on comparison to “matching” pagers for the same provider.
3. For purposes of constructing a “typical” year, we omitted charges that appeared to be one-time charges (for example, anomalous charges, such as for lost pagers, were not part of the average pager costing analysis).
4. For pagers with no billing information, we applied the average available billing information for the same provider. This method applied to those known to have been discontinued before the audit started and those considered being in service because of no indication of earlier termination.
5. We included the sales tax amounts where listed. This applied to a subgroup of the 800-series (toll free)<sup>11</sup> phone numbers.
6. For pagers that could not be matched to any provider billing information, we applied the average of the known provider groups. When the number was known to be an 800-series number, we used the average prices for 800-series phone numbers from the other providers. For 130 pagers for which we had no details at all (including telephone numbers), we applied an overall average of the known billing amounts.

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<sup>11</sup> Phone numbers in the 800 series are those with area codes 800, 888, 866, etcetera.



We also summarized the results of our pager usage testing using the following categories:

1. Pagers tested and considered to be in use: called and received call-back.
2. Pagers tested and considered not to be in use: called and did not receive call-back.
3. Pagers not tested – incomplete: not called because of incomplete telephone information (such as missing the personal identification number) or because testing was stopped early.
4. Pagers not tested – terminated: not tested because service terminated prior to start of audit, as indicated by service termination date information from service provider, billing information that had a single negative correcting entry in October 2005, or bills containing a single entry that appeared to be unrelated to a monthly charge.

Finally, we determined the number of pagers (Table 1) and total costs (Table 2) for pagers in each category, by provider, using the annualized costs.

**Table 1. Pager Counts**

Service Provider	Pager Count by Category				Total
	Called and Received Call-Back	Called and Did Not Receive Call-Back	Not called: Incomplete Information or Testing Stopped	Not Called: Service Terminated Before Audit	
[REDACTED]	19	13	7	0	39
[REDACTED]	2	24	6	7	39
[REDACTED]	29	90	35	11	165
Other	0	7	4	8	19
Additional pagers identified by the Postal Service: no details			130		130
<b>Total</b>	50	134	182	26	392

**Table 2. Annual Costs**

Service Provider	Pager Annual Usage Cost by Category				
	Called and Received Call-Back	Called and Did Not Receive Call-Back	Not Called: Incomplete Information or Testing Stopped	Not Called: Service Terminated Before Audit	Total
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Other	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Additional 130 pagers identified by the Postal Service			[REDACTED]		[REDACTED]
<b>Total</b>	\$9,336	\$23,248	\$32,033	\$5,230	\$69,847
	29%	71%			

Finally, we calculated the estimated annual savings to be achieved by discontinuing pagers:

1. We noted that the percent of pagers in use — out of those tested — was similar using the pager counts (27 percent) and the dollar amount (29 percent) to calculate the ratio. We chose to perform savings allocation computations using ratios based on the dollar amounts as shown in Table 2 above.
2. We determined base case cost savings as the sum of (1) \$23,248 for pagers tested and determined not to be in use and (2) \$22,855 for 71 percent (100 percent minus 29 percent) of the \$32,033 for pagers not tested because of incomplete information or because testing stopped early. The total base case cost savings is \$46,103 per year.
3. We determined the potential cost savings would be \$61,386 if the Postal Service eliminates 95 percent — rather than just 71 percent — of the pagers.

We noted management already realized \$5,229 of savings for 1 year by eliminating 26 pagers prior to the audit test period.

## APPENDIX C. MANAGEMENT'S COMMENTS



April 20, 2007

KIM STROUD

SUBJECT: Headquarters Cellular Services (Report Number IS-AR-07-DRAFT)

We are pleased to provide the attached responses to the recommendations in the subject audit report. We are in agreement with all of the audit findings and where feasible have or are taking corrective actions to address all requirements of the recommendations detailed in the report.

Additionally, we acknowledge the \$122,772 of estimated monetary savings identified by your audit team and will utilize it to better serve our employees and customers.

The subject audit report and this response do not contain information relating to potential security vulnerabilities, and can be disclosed under the Freedom of Information Act. Please, however, restrict distribution to a need to know basis, only.

If you have questions regarding our response, and would like to discuss them further, please contact Paul Caiazza, CTO Audit Response Management.

Handwritten signature of Robert L. Otto in cursive.

Robert L. Otto  
Vice President, Chief Technology Officer

Handwritten signature of Lynn Malcolm in cursive.

Lynn Malcolm  
Vice President, Controller

Attachment

cc: H. Glen Waiker  
Deborah Kendall  
Pete Stark  
Dean Larrabee  
Larry Wills

475 L'ENFANT PLAZA SW  
WASHINGTON DC 20269  
WWW.USPS.COM

**HQ Cellular Services  
Management Response April 20, 2006**

We recommend the Vice President, Chief Technology Officer, direct the Manager, Telecommunication Services, to:

**Recommendation 1:**

Eliminate unused pagers identified in this audit.

**Management Response:**

Information Technology is in agreement and concurs with this finding. We agree that pagers not being utilized should be eliminated from the postal inventory.

**Scheduled Completion Date:** September 28, 2007

**Recommendation 2:**

Reassess current needs for the remaining pagers in the Postal Service inventory and eliminate unnecessary devices.

**Management Response:**

Information Technology is in agreement and concurs with this finding. We agree that paging technology is fast becoming obsolete and, in most cases, can and will be eliminated.

**Scheduled Completion Date:** November 30, 2007