# Audit Report

# The Department of Energy's Management and Use of Mobile Computing Devices and Services

## Department of Energy
Washington, DC 20585

April 15, 2014

MEMORANDUM FOR THE SECRETARY

FROM: Gregory H. Friedman
Inspector General

SUBJECT: INFORMATION: Audit Report on "The Department of Energy's Management and Use of Mobile Computing Devices and Services"

BACKGROUND

Mobile computing devices are routinely used in the Federal Government to facilitate internal and external communications, collaborations and operations. Nearly $1.2 billion is spent annually on mobile and wireless devices and services across the Federal Government. Because of the significant use of electronic devices, the U.S. Office of Management and Budget developed a mobility strategy to address the purchase and management of smart phones and tablets. Agencies are encouraged to assess device inventories and usage, and establish controls to ensure they are not paying for unused or underutilized information technology equipment, software or services. In addition, voluntary programs have gained popularity throughout the private and public sectors, which allow an individual to use personally owned mobile devices for work purposes and, in some cases, receive stipends to help offset costs incurred by the employee.

A prior Office of Inspector General report identified weaknesses related to the acquisition and use of mobile or wireless communication devices within the Department of Energy. Specifically, our review of the *Use and Management of Mobile Communications Services* (DOE/IG-0669, December 2004), found that the Department and its contractors incurred costs for cellular phone and paging services that were not aligned with user needs, failed to take advantage of volume discounts and incurred disproportionate administrative costs related to managing services. In light of our prior findings and the increased use of mobile devices, we initiated this audit to determine whether the Department effectively managed the acquisition and use of mobile computing devices and services.

RESULTS OF AUDIT

The Department had taken certain actions designed to improve the management and acquisition of mobile computing devices and services since our prior review. Despite those efforts, we identified opportunities for the Department to improve the acquisition and management of mobile devices and related services and potentially save more than $2.3 million over a 3-year period at just 8 of 10 locations reviewed. In particular, we noted that:

- At the locations reviewed, the Department spent over $325,000 to support mobile devices that were not used the entire time they were activated in FY 2012. In addition, numerous other devices appeared to be significantly underutilized.

- Controls over facility contractor-administered stipend initiatives needed to be strengthened. At some sites, we noted that contractors had not confirmed that their employees were actually incurring incremental costs associated with business use, such as in the case of employees who privately maintained unlimited voice and/or data plans. In addition, the cost of providing employees with certain stipends appeared to exceed the cost of providing them with a Government device.

- The Department had not taken action to consolidate contracts and leverage demand to increase buying efficiency for the acquisition of mobile computing devices and services. We identified numerous locations that maintained multiple contracts with the same service providers. However, prices varied significantly for similar services. Also, organizations maintained numerous independent administrative teams responsible for mobile device acquisitions and management – this practice appeared to be inefficient and excessively costly.

The problems we identified occurred, in part, because the Department had not always developed and/or implemented effective policies and procedures to govern the issuance, use and monitoring of mobile devices and services. For instance, although many sites monitored overall costs, they had not monitored usage to determine whether there was a continuing need for mobile devices. In addition, sites had not developed and implemented policies and procedures to ensure that employees who received stipends actually incurred additional costs as a result of using personal devices for business purposes. Sites also had not always conducted adequate cost-benefit analyses related to stipend initiatives, a factor that may have contributed to higher than necessary payments to contractor employees. Furthermore, programs and sites had taken a fragmented approach to procurement and administration of mobile devices rather than using a centralized coordinated approach. This practice resulted in potentially costly and duplicative acquisition and maintenance functions and varying prices paid for the same products and services.

While our findings indicate that more remains to be done, we did observe some positive actions designed to reduce costs. Certain sites reviewed pooled voice minutes and/or data usage within each respective site to help prevent overage charges. For example, the Office of the Chief Information Officer told us that it realized significant cost savings by implementing mobile device service plans with pooled minutes at Headquarters. In addition, prior to our site visit, Oak Ridge National Laboratory Internal Audit completed a review of mobile devices and identified air cards costing over $20,000 that had zero usage over a 6-month period. Based on that review, Oak Ridge National Laboratory canceled service for a number of air cards. In accordance with a recent Department memorandum on *Streamlining and Reducing the Cost of Mobile Devices*, the Office of the Chief Information Officer had also taken action to implement recommendations from an Integrated Project Team that was assembled to aid the Department in simplifying and reducing the cost of acquiring mobile devices and service plans for Federal employees.

While these are positive actions, additional effort is necessary to ensure the Department is managing mobile device efforts in a cost-effective manner. Without further improvement, the Department will continue to spend more than necessary on the acquisition and use of mobile computing devices, services and stipend initiatives. As such, we have made several recommendations that, if fully implemented, could help the Department realize potential savings of more than $2.3 million over the next 3 years. Because our review did not cover all Department locations, we believe our estimate is conservative.

MANAGEMENT REACTION

Management concurred with the report's recommendations, indicating that it had initiated corrective actions related to implementing program improvements designed to address our recommendations.  Management's formal comments are included in Appendix 4.

Attachment

cc:  Deputy Secretary
      Acting Under Secretary for Nuclear Security
      Acting Under Secretary for Management and Performance
      Deputy Under Secretary for Science and Energy
      Chief of Staff
      Senior Advisor for Environmental Management
      Chief Information Officer
      Acting Chief Financial Officer
      Director, Office of Management

# REPORT ON THE DEPARTMENT OF ENERGY'S MANAGEMENT AND USE OF MOBILE COMPUTING DEVICES AND SERVICES

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# THE DEPARTMENT OF ENERGY'S MANAGEMENT AND USE OF MOBILE COMPUTING DEVICES AND SERVICES

## Mobile Computing Device and Service Management

The Department of Energy (Department) had not always managed the acquisition and use of mobile computing devices and services in an effective and efficient manner. At the six program offices and nine field sites visited, we identified costs totaling more than $325,000 for devices and services that were not utilized during the period reviewed. In addition, controls over facility contractor-administered stipend programs could be strengthened for Bring Your Own Device (BYOD) initiatives at three sites tested. Furthermore, the Department may have spent more than necessary establishing and managing various contracts related to the acquisition of mobile devices and services.

<u>Usage Inefficiencies</u>

The Department spent more than necessary in Fiscal Year (FY) 2012 on mobile devices and services at the locations reviewed. We found that more than $325,000 was spent on devices and service plans that did not use any minutes and/or data when activated during FY 2012. These devices included mobile technologies such as phones, BlackBerrys®, tablets and air cards.[1] For example:

- Y-12 National Security Complex (Y-12) spent over $56,000 to support unused phones, air cards and tablets. In comments on our report, Y-12 officials indicated that they had identified a 10 percent reduction in devices subsequent to our site visit.

- National Nuclear Security Administration (NNSA) spent nearly $45,000 on 83 devices at Headquarters that went unused during the period reviewed, representing more than 10 percent of the devices maintained by the program.

- Pacific Northwest National Laboratory (PNNL) spent over $41,000 for 97 mobile devices that were not used while activated, about one-third of which were not used for the entire 12 months reviewed. For example, we noted that PNNL incurred charges for two employees who had separated from the Laboratory but did not turn in phones in accordance with the cell phone management process. As such, services for these phones had not been discontinued for at least the remainder of the fiscal year.

- Oak Ridge National Laboratory (ORNL) spent nearly $33,000 to maintain 126 devices that were not used while activated in FY 2012, including mobile phones and/or air cards and tablets. Subsequent to our review, ORNL officials informed us that policies and technical controls were implemented to reduce the number of underutilized and unused mobile devices.

In addition to the unused mobile computing devices and services identified, our audit discovered what appeared to be significantly underutilized devices at each of the organizations reviewed.

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[1] An air card is designed to permit a device connect to the internet using a cellular telephone system.

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Details of Finding

The following table illustrates the potential underutilization of devices as a percentage of plan allowance.[2]

| Program | Zero Minute and Data Usage (devices) | 1-10% of Plan Allowance (devices) | 11-20% of Plan Allowance (devices) | 21-30% of Plan Allowance (devices) |
|---|---|---|---|---|
| **Office of Environmental Management:** | | | | |
| Headquarters | 100 | 128 | 26 | 25 |
| MSA/CHPRC | 184 | 11 | 0 | 0 |
| **Office of Fossil Energy:** | | | | |
| Headquarters | 52 | 74 | 19 | 13 |
| **Office of the Chief Information Officer:** | | | | |
| Headquarters | 63 | 49 | 15 | 7 |
| **Office of Nuclear Energy:** | | | | |
| Headquarters | 39 | 48 | 19 | 15 |
| **National Nuclear Security Administration:** | | | | |
| Headquarters | 83 | 323 | 115 | 61 |
| Y-12 | 224 | 244 | 127 | 79 |
| **Office of Science:** | | | | |
| Headquarters | 10 | 139 | 40 | 20 |
| Oak Ridge Office | 43 | 72 | 14 | 12 |
| ORNL | 126 | 271 | 88 | 56 |
| PNNL | 97 | 315 | 97 | 69 |
| **SUBTOTAL** | **1,021** | **1,674** | **560** | **357** |
| **TOTAL UNUSED AND POTENTIALLY UNDERUTILIZED DEVICES** | | | **3,612** | |

Due to the varying missions of the program offices and sites reviewed, we understand that a business case may exist for mobile computing devices that have zero usage or are not used on a regular basis. We could not determine whether all of the underutilized devices could be terminated. However, based on the sheer number of potentially underutilized devices, we believe it is important for the Department to re-evaluate devices for ongoing necessity and determine which employees should be assigned mobile devices, considering both operational requirements and cost of acquiring and maintaining the devices.

<u>Bring Your Own Device Initiatives</u>

We identified opportunities for improved accountability at three facility contractors who initiated BYOD programs. In particular, we found that sites had not always ensured employees were actually incurring incremental costs associated with business use. In addition, certain facility contractors had not always calculated mobile device stipend or cell phone allowance amounts in the most cost effective manner, potentially costing the Department up to about $455,000 more than necessary.

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[2] Included in these figures are plans with limited capacity (e.g., 300 voice plan minutes or 5 gigabytes of data). We did not include plans with unlimited voice minutes and/or unlimited data in the table unless the device experienced zero usage.

We identified opportunities to enhance accountability over BYOD initiatives at three sites reviewed. These sites spent over $1.6 million in FY 2012 on stipend reimbursements to employees for use of personal devices. Although there were a number of controls in place surrounding the issuance of stipends such as training, employee certification and management approval, additional controls could further strengthen BYOD programs. For example, officials at the sites evaluated had not ensured employees were actually incurring incremental costs associated with business use before approving stipends ranging from $15 to $110 per month. Specifically, managers had not reviewed existing plans to determine whether employees had unlimited voice and/or data prior to granting stipends, thereby eliminating the need to be reimbursed. While many service providers furnish unlimited voice minutes as a standard practice, we recognize that data amounts could be limited. However, without a control in place to evaluate such plans, we found that the possibility existed that employees could claim stipends even though they did not incur any additional charges as a result of business use. Further, the sites reviewed had not implemented processes to ensure that employees were meeting established policies for receiving stipends. While we are not advocating that every user be reviewed, we believe it would be prudent to implement controls, such as periodically evaluating a sample of stipend users to validate they are entitled to allowances being claimed.

We also found that certain facility contractors had not always calculated mobile device stipend or cell phone allowance amounts to ensure the Department realized cost savings. In particular, outdated and/or overstated rates were used in the calculation of stipend amounts paid to employees at several sites. We found that higher than necessary stipend levels were established at two sites, resulting in the Department paying $455,000 more than necessary in FY 2012. Specifically, employees were reimbursed more than the cost the Government would have paid for a Government-procured mobile device service plan. We found that PNNL used outdated commercial rates for stipend calculations instead of lower current rates offered under the General Services Administration (GSA) Federal Supply Schedule for similar mobile device plans. For example, eligible employees at PNNL could have received a $90 per month stipend even though a Government-issued device with a similar plan was available through GSA at a cost of approximately $48. Had GSA rates been used in the calculation of various voice and data stipends at PNNL, the Laboratory could have potentially avoided costs of more than $428,000. In preliminary comments on our report, PNNL officials stated that stipend levels were established using the consumer service rates available to their staff within the geographic region because GSA rates did not apply to personally owned devices. While we understand that GSA rates are not available on personal service contracts, we are concerned because, in many cases, the stipends were higher than what would have been paid had the employees been issued Government devices.

We also noted during our review that the Department experienced cost shifts that could have been mistaken for cost savings. Specifically, although sites claimed that mobile device expenses within information technology departments appeared to decrease when BYOD programs were initiated, those costs were actually shifted to the specific project via project codes. This created a cost savings for information technology departments, but not necessarily for the Department as a whole. In addition, according to officials at one site, a surge in employee BYOD interest resulted in many employees who did not previously have a business phone opting into the

BYOD program and being granted a stipend when it became available. Going forward, it may be in the Department's best interest to only allow employees who normally would have been issued a Government-issued mobile device to be eligible for a stipend.

<div align="center">Procurement of Devices and Services</div>

The Department had not taken sufficient action to minimize costs associated with establishing and managing various contract vehicles related to the acquisition of mobile computing devices and services. In particular, we found that programs and sites established independent administrative teams responsible for mobile device acquisitions and managed numerous contracts with the same service providers that contained varying prices for similar services. For example, documentation provided by programs and sites indicated that, in certain instances, Headquarters paid about $56, and PNNL paid approximately $66 for nearly identical levels of international voice and data service offered by the same carrier. While PNNL indicated that the standard voice and data cost was $46 per month, we found at least one-third of devices reviewed also incurred additional charges for international features. Even within individual sites, we noted that numerous voice and data plans were maintained, which provided the same services at varying prices. For instance, 34 separate voice plans associated with cellular service and 34 separate data plans associated with air card and tablet service were activated at ORNL during FY 2012. At our request, ORNL contacted two carriers to review the number and nuances of plans offered. As a result, ORNL was able to consolidate and reduce its 68 plans by more than 50 percent. ORNL officials also commented that they will continue work to reduce the number of plans made available for Government-issued devices.

Similar to the procurement issues we have identified in this report, we also noted that three of the sites reviewed had established separate agreements for mobile device management software with varying terms, resulting in higher than necessary costs. For instance, licenses for the software were purchased for a 1-year term with annual renewal and/or maintenance at prices ranging from approximately $28 per license at the East Tennessee Technology Park to $165 per license at ORNL. However, the same software was procured by PNNL as perpetual, or lifetime licenses, and had no expiration dates or additional yearly fees. As a result, costs for the same mobile device technology at the three sites ranged between a one-time fee of $129 to a yearly fee of $165. In preliminary comments on our report, ORNL reported that the software vendor had discontinued permanent license prices. However, we found that PNNL was able to negotiate additional licenses under the previous terms. As the Department continues to purchase mobile device management software in support of BYOD initiatives, it is important that sites coordinate and consolidate efforts to obtain this technology in the most economical manner.

## Monitoring, Policies and Cost Controls

The problems we identified occurred, in part, because the Department had not always developed and/or implemented effective policies and procedures to govern the issuance, use and monitoring of mobile computing devices and services. In addition, we found that sites had not adequately developed and implemented policies and procedures related to management of BYOD programs. Furthermore, programs and sites had taken a fragmented approach to procurement and

administration of mobile devices rather than using a centralized coordinated approach, resulting in potentially costly duplicative acquisition and maintenance functions and varying prices paid for the same products and services.

<p align="center">Mobile Device Monitoring and Policy</p>

Although Executive Order 13589, *Promoting Efficient Spending*, states that agencies should assess mobile device inventories and usage and establish controls to ensure they were not paying for unused or underutilized equipment, software or services, we found that the Department had not implemented effective monitoring practices. Specifically, officials at several sites reviewed had not always assessed or monitored individual usage patterns to determine ongoing necessity of mobile devices. For instance, monitoring practices at the Richland Operations Office included a review of disallowed features, overages and incorrect plan billings, but did not take usage data into consideration to determine whether costs for unused or underutilized equipment could be reduced or eliminated. Further, in preliminary comments on our report, PNNL stated that a "reasonableness test" was performed, which takes into account the current number of devices and changes in inventory counts and vendor fees. In doing so, however, individual usage patterns were not monitored to determine the ongoing necessity of the mobile device. To its credit, the Headquarters Office of Science suspended a device's account if it had not been connected to the Enterprise Server within 30 days, and service was terminated after 60 days of inactivity.

Furthermore, we found the Department's contractors had not effectively developed and implemented policies and procedures related to mobile device stipends associated with BYOD programs. Despite establishing guidelines that included usage and travel criteria, policies reviewed were not always prescriptive enough and may have permitted employees to be reimbursed for mobile device services even though they were not used for business purposes and/or travel. In addition, policies and procedures did not require verification that employees who received stipends actually incurred additional costs as a result of using personal devices for business purposes.

<p align="center">Stipend Analyses</p>

We found that inadequate cost-benefit analyses may have contributed to higher than necessary stipends paid to employees at two sites. As noted by the White House's Digital Government Strategy, *Digital Government: Building a 21ˢᵗ Century Platform to Better Serve the American People*, BYOD programs can and should be cost effective. To achieve cost effectiveness, a cost-benefit analysis is essential and should take into account both potential increases in employee productivity and potential cost shifts. While certain sites had performed cost-benefit analyses prior to implementation of stipend programs, we found that the analyses were not always adequate. For example, in some instances, inappropriate rates were used when calculating stipend amounts resulting in higher than necessary stipends. Specifically, ORNL used rates that were higher than those offered to Government customers by GSA when calculating how much to reimburse employees. Had adequate cost-benefit analyses been conducted, officials could have determined whether proposed stipend amounts were more costly to the Department than issuing mobile computing devices with similar plans through GSA's Federal Supply Schedule. During a

discussion with officials at ORNL, they indicated that BYOD efforts were aimed at increasing worker productivity and mobility and not at realizing cost savings. While we recognize that increasing productivity is a goal of BYOD programs, organizations should ensure that BYOD programs are also carried out in a cost-effective manner.

<p style="text-align:center"><u>Independent Acquisition Efforts</u></p>

Programs and sites had not always taken a coordinated approach to procuring mobile computing devices and services. In particular, the Department's management of mobile device and service acquisitions was largely conducted independently by programs and field sites, with little or no coordinated or integrated efforts to consolidate and streamline acquisition processes to increase efficiencies. Even within sites, we found that officials had not always monitored service plans to ensure they were obtaining the best available pricing, such as in the case of ORNL. According to the White House's Digital Government Strategy, adopting a shared services approach and consolidating mobile device and wireless service contracts will not only reduce costs but also improve an agency's ability to track usage, analyze pricing, secure devices and deliver mobile applications. While we recognize that certain locations such as ORNL may have the need for multiple service providers, care should be taken across the Department to ensure that mobile device contracts are consolidated to the extent practical. Further, to maximize constrained resources, the Office of Management and Budget's *Federal Information Technology Shared Services Strategy* encouraged Federal agencies to eliminate wasteful spending that results from implementing duplicative commodity information technology functions such as those related to mobility solutions.

## Opportunities for Savings and Path Forward

Without improvements, the Department may not realize costs savings of more than $2.3 million over the next 3 years at just the programs and sites reviewed (see Appendix 1). In particular, we determined the Department could realize savings by monitoring individual usage patterns and terminating service for underutilized or unused devices. While we realize that not all underutilized devices can be terminated, we believe that with an effective control system in place, the potential exists for significant savings complex-wide. For instance, sites could use spreadsheets and data analysis tools, such as those used by the audit team, to evaluate usage in a timely and cost effective manner. In addition, the potential exists to reduce the cost of BYOD programs through improved implementation of controls. We believe that our estimate of cost savings is conservative because our review only focused on a sample of the Department's programs and sites and included only certain types of voice and/or data plans. Therefore, it is likely that potential cost savings could be significantly higher than our estimate.

Furthermore, current procurement practices will continue to prevent the Department and its contractors from effectively leveraging enterprise-wide purchasing power and hinder the Department's ability to benefit from streamlining purchases and contract administration. For instance, the U.S. Department of Agriculture reported that it recently reduced expenses by $4 million annually by streamlining mobile acquisitions. The U.S. Department of Agriculture

also hopes to obtain a 40 percent reduction in telecommunication expenses once it restructures accounts, centralizes billing and makes better use of pooling of available minutes. In light of current fiscal challenges, it is critical that the Department ensure that mobile device efforts are implemented and managed in the most effective and efficient manner possible.

## RECOMMENDATIONS

To improve the management, acquisition and use of mobile computing devices and services, we recommend that the Under Secretary for Nuclear Security, the Under Secretary for Management and Performance and the Deputy Under Secretary for Science and Energy, in coordination with the Department's and National Nuclear Security Administration's Chief Information Officers:

1. Develop and implement policies and procedures to ensure cost effective utilization of mobile computing devices, to include managing the issuance of mobile computing devices and evaluating activated devices for continuing business need;

2. Develop a coordinated approach to BYOD implementation that addresses areas such as policies, best practices and lessons learned; and

3. Develop and implement formal policies and procedures for ensuring that mobile computing device acquisitions are coordinated between Headquarters and field sites, to include:

    a) consideration of Federal Strategic Sourcing Initiatives, where appropriate;

    b) consolidation of mobile device contracts and agreements to better leverage enterprise purchasing power; and

    c) evaluation of carrier plans for consolidation opportunities.

## MANAGEMENT REACTION

Management concurred with each of the report's recommendations and indicated that corrective actions had been taken or were planned to address the issues identified. For example, management noted that the Office of the Chief Information Officer will establish policies and procedures to ensure cost-effective utilization of mobile computing devices. In addition, management commented that it was developing Department policy on *Mobile Technology Management* that will direct all programs to implement mobile technology management processes to address, among other things, BYOD reimbursement controls. Management also indicated that the Office of the Chief Information Officer, in collaboration with the program offices, was assessing a new offering of Department-wide wireless service and planned to implement them in FY 2014.

**AUDITOR COMMENTS**

Management's comments and planned corrective actions were responsive to our recommendations.  Management's comments are included in Appendix 4.

## POTENTIAL SAVINGS

As noted in the body of the report, we found that the Department of Energy (Department) could realize potential cost savings of more than $2.3 million over the next 3 years at just the programs and sites reviewed. Specifically, we found that over $325,000 more than necessary was spent to support mobile computing devices that did not use any minutes and/or data when activated during Fiscal Year (FY) 2012. This was calculated by comparing actual device usage to allotted voice minutes and/or data amounts. Using computer assisted audit techniques, we conducted an analysis to identify those devices with zero usage. In addition, we determined that over $455,000 was spent in FY 2012 on employee stipends that appeared to exceed the cost of providing employees with a Government device.

The following table summarizes the possible savings the Department could realize over the next 3 years through more effective management of its mobile computing devices. Because our review was limited to certain types of plans, we believe our savings estimate is conservative.

| | Identified FY 2012 Savings | Potential Savings (3 years) |
|---|---|---|
| **Unused Mobile Devices** | | |
| Phones | $178,970 | $536,910 |
| Tablets and Air Cards | $147,954 | $443,862 |
| **Subtotal** | **$326,924** | **$980,772** |
| **Bring Your Own Device Programs** | | |
| Stipends | $455,210 | $1,365,630 |
| **TOTAL** | **$782,134** | **$2,346,402** |

<u>**OBJECTIVE, SCOPE AND METHODOLOGY**</u>

**OBJECTIVE**

To determine whether the Department of Energy (Department) effectively managed the acquisition and use of mobile computing devices and services.

**SCOPE**

The audit was performed between October 2012 and April 2014, at Department Headquarters in Washington, DC and Germantown, Maryland; the Oak Ridge National Laboratory, Y-12 National Security Complex, East Tennessee Technology Park and Oak Ridge Office in Oak Ridge, Tennessee; and the Pacific Northwest National Laboratory, Hanford Site, Richland Operations Office and Office of River Protection in Richland, Washington. The following mobile computing devices were considered for this audit: cellular telephones, smart phones, Blackberrys®, tablets and air cards. We reviewed 12 months of mobile device usage and cost details provided by organizations and service carriers from October 2011 through September 2012, with the exception of the Richland Operations Office and the Office of River Protection. These two locations were unable to provide data in a format suitable for consistent analysis of usage details across all sites reviewed. The audit was conducted under Office of Inspector General Project Number A13TG004.

**METHODOLOGY**

To accomplish our objective, we:

- Reviewed applicable laws and directives pertaining to information technology management, including Executive Order 13589 – *Promoting Efficient Spending,* dated November 9, 2011.

- Reviewed related reports issued by the Office of Inspector General and the U.S. Government Accountability Office (GAO).

- Reviewed best practices and GAO decisions pertaining to Bring Your Own Device (BYOD) programs.

- Reviewed documentation such as wireless contracts, data and voice plans options, usage information, General Services Administration pricing lists, the Federal Strategic Sourcing Initiatives, BYOD policies and initiatives.

- Held discussions with field site officials and officials from various Departmental offices responsible for mobile device management, acquisition and BYOD initiatives.

- Used data analysis software to evaluate mobile device usage and cost details provided by organizations and service carriers for Fiscal Year 2012. We obtained the data in

electronic format and used computer assisted audit techniques to identify patterns and anomalies. This included compiling all available carrier data into one spreadsheet for each site and program. We combined all available data by wireless number and analyzed actual usage to plan allowance to identify underutilized and unused devices. Our analysis to identify utilization percentages could only be performed on devices that had plans with limited capacity (e.g., 300 voice plan minutes or 5 gigabytes of data). Plans with unlimited voice and/or data were excluded from our review unless they experienced zero usage.

We conducted this performance audit in accordance with 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 objective. Accordingly, we assessed significant internal controls and compliance with laws and regulations to the extent necessary to satisfy the audit objective. In particular, we assessed the Department's implementation of the *GPRA Modernization Act of 2010.* Although the Department had established certain overarching performance goals subsequent to our audit work, none of the sites evaluated had established performance metrics specific to the acquisition and use of mobile computing devices and services. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of our audit. We relied on computer-processed data to satisfy our audit objective and tested the validity of the data by comparing reports provided by programs and site to vendor invoices. We determined that the data was reliable for the purposes of our audit objective.

Management waived an exit conference.

## RELATED REPORTS

**Office of Inspector General Reports**

- Audit Report on *Use and Management of Mobile Communications Services* (DOE/IG-0669, December 2004). The report identified that the Department of Energy (Department) had only limited assurance that mobile communication devices and services were being used and managed in a cost effective manner. At three of the eight sites visited, as much as $1.13 million annually could be saved by adopting more efficient methods for use and management of communication devices and services. For instance, costs for cellular phone and paging services were not aligned with user needs, i.e., a number of devices or services were over or under used. The issues identified occurred because organizations did not always focus on ensuring that a valid mission need existed or on using the most cost efficient method for obtaining needed services.

- Special Report on *Management Challenges at the Department of Energy – Fiscal Year 2014* (DOE/IG-0899, November 2013). Based on the work performed during Fiscal Year (FY) 2013 and other risk assessment tools, the Office of Inspector General identified eight areas, including operational efficiency and cost savings, which remained as management challenges for FY 2014. While positive strides had been made in a number of areas, many of the Department's most significant management challenges were not amenable to immediate resolution.

**U.S. Government Accountability Office Reports**

- Report on *Better Implementation of Controls for Mobile Devices Should Be Encouraged* (GAO-12-757, September 2012). According to the report, it is increasingly important that mobile devices be secured from expanding threats to confidentiality, integrity and availability of information maintained and shared. As such, the U.S. Government Accountability Office identified common security threats and vulnerabilities that exist with mobile devices, available security features and practices to mitigate the risk associated with these vulnerabilities and the extent with which the Government and private entities are addressing security vulnerabilities on mobile devices.

- Report on *Improved and Expanded Use Could Save Billions in Annual Procurement Costs* (GAO-12-919, September 2012). The report stated Federal agencies leveraged only a fraction of their buying power through strategic sourcing and achieved limited savings. In FY 2011, the Departments of Defense, Homeland Security, Energy and Veterans Affairs accounted for 80 percent of the $537 billion in Federal procurement spending, but reported managing about 5 percent or $25.8 billion through strategic sourcing efforts. These agencies reported savings of $1.8 billion – less than one-half of one percent of procurement spending.

**MANAGEMENT COMMENTS**

**Department of Energy**
Washington, DC 20585

March 21, 2014

MEMORANDUM FOR RICKEY HASS
                         DEPUTY INSPECTOR GENERAL
                            FOR AUDITS AND INSPECTIONS
                         OFFICE OF INSPECTOR GENERAL

FROM:               ROBERT F. BRESE
                     CHIEF INFORMATION OFFICER

SUBJECT:       IG Draft Report, "The Department's Management and Use of
                      Mobile Computing Devices and Services" (A13TG004)

Thank you for the opportunity to comment on this draft report. The Department of Energy (DOE) reviewed the report and concurs with all recommendations. The Office of the Chief Information Officer (OCIO), in collaboration with the program offices, is developing a Departmental Order on Mobile Technology Management that includes guidance on management and use of personal mobile devices within the DOE environment. The OCIO is also developing a wireless management system to more efficiently manage device usage and costs that can be leveraged across DOE.

The management response to the specific recommendations in the draft report is outlined below. Technical comments and program-specific plans of action are included in the appendices.

**Recommendation 1**: *Develop and implement policies and procedures to ensure cost effective utilization of mobile computing devices, to include managing the issuance of mobile computing devices and evaluating activated devices for continuing business need*

**Management Response:** Concur.

Overall, the Department actively seeks ways to reduce costs administratively by centralizing and streamlining acquisition, inventory, and billing processes in order to reduce the number of contracts and service plans. The Department performs Investment Portfolio Stat assessments to identify opportunities to consolidate the acquisition and management of commodity IT services, and increase the use of shared-service delivery models. OCIO will lead the Department in establishing policies and procedures to ensure cost-effective utilization of mobile computing devices.

**Recommendation 2**: *Develop a coordinated approach to BYOD implementation that addresses areas such as policies, best practices and lessons learned*

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**Management Response**: Concur.

The draft DOE Order on Mobile Technology Management will direct all DOE offices to implement mobile technology management processes that address specific areas of concern including security and expense reimbursement controls. The draft Order is based on best practices documented by NIST, other Federal agencies, and DOE offices that have implemented mobile technology management procedures. The draft Order includes references that highlight best practices and lessons learned. This Order is expected to be finalized by April 30, 2014.

**Recommendation 3**: *Develop and implement formal policies and procedures for ensuring that mobile computing device acquisitions are coordinated between Headquarters and field sites, to include: (a) consideration of Federal Strategic Sourcing Initiatives, where appropriate; (b) consolidation of mobile device contracts and agreements to better leverage enterprise purchasing power; and (c) evaluation of carrier plans for consolidation opportunities.*

**Management Response**: Concur.

The OCIO, in collaboration with the program offices, is assessing a new Enterprise-wide offering of wireless service, with plans to implement as early as Q2, FY14. As part of this initiative:

- OCIO will evaluate one or multiple vendor contracts under FSSI. A RFQ is currently being drafted for FSSI vendor response.
- Field sites and HQ program offices will be encouraged to participate to leverage additional buying power and discounts across DOE.
- Centralized acquisition to be offered will streamline processes and inventory.
- Centralized billing, validation and payment will reduce administrative costs DOE-wide for Offices and Field Sites choosing to participate.
- Identification and use of "best rate" plans across DOE
- Metered and pooled minutes plans will be offered in an effort to reduce cost
- Pooling will be centrally managed for participating Offices and Field Sites to achieve greater efficiencies and cost savings

Additionally, the OCIO will be implementing a new billing and reporting tool that provides capabilities to streamline the monthly billing and usage reporting enabling program offices to manage their wireless usage and costs more efficiently, and in a timely manner.

If you have any questions, please contact Ms. Virginia Arreguin, Associate CIO for Energy IT Services on 301-903-9801.

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