



OFFICE OF
**INSPECTOR
GENERAL**
UNITED STATES POSTAL SERVICE

Data and Voice Communications

Audit Report

June 14, 2013

Report Number IT-AR-13-005



HIGHLIGHTS

BACKGROUND:

The U.S. Postal Service relies on data and voice communications to support one of the world's largest computing networks and email systems. This communication infrastructure reaches over 35,000 Postal Service facilities from the nation's capital to the remote locations of Alaska.

With declining mail volume and changing consumer needs, the Postal Service is optimizing facilities, which includes the consolidation of plants and operations. The consolidation efforts affect data and voice communications as data transmissions increase in the gaining facility and decrease in the vacating facility.

Our objective was to determine whether Postal Service facilities have appropriate data and voice communication. In addition, this review served as a follow up to a prior U.S. Postal Service Office of Inspector General audit, evaluating whether corrective measures taken were successful in providing expected benefits.

WHAT THE OIG FOUND:

The Postal Service provided appropriate data and voice communication for the active and nonactive facilities we

reviewed by routinely monitoring and reviewing data and voice services and contracts. In addition, to improve the monitoring of data and voice communication, the Postal Service implemented and enhanced computer applications to provide accurate data and voice inventory and payment processes. Further, information technology projects included reviews of sites to determine whether they were valid and active and data communication was still appropriate, and review and removal of unused voice communication. Finally, the Postal Service projected annual savings of \$4 million from efforts to recompetitely its telephone line contracts and \$8.8 million estimated savings from efforts to recompetitely data services.

Continuously reassessing data and voice communications assets ensures that management is using optimal services and resources.

WHAT THE OIG RECOMMENDED:

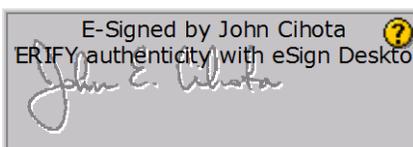
Because the Postal Service demonstrated diligence in managing data and voice communications, we are not making any recommendations.

[Link to review the entire report](#)



June 14, 2013

MEMORANDUM FOR: JOHN T. EDGAR
VICE PRESIDENT, INFORMATION TECHNOLOGY



FROM: John E. Cihota
Deputy Assistant Inspector General
for Financial and Systems Accountability

SUBJECT: Audit Report – Data and Voice Communications
(Report Number IT-AR-13-005)

This report presents the results of our audit of U.S. Postal Service Data and Voice Communications (Project Number 13BG009IT000). The Postal Service informally reviewed a discussion draft of this report and had no comments or concerns.

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Paul L. Kuennen, director, Information Technology, or me at 703-248-2100.

Attachment

cc: Ellis A. Burgoyne
Tom A. Samra
Larry K. Wills
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TABLE OF CONTENTS

Introduction	1
Conclusion	1
Data and Voice Communications	2
Recommendation	5
Appendix A: Additional Information	6
Background	6
Objective, Scope, and Methodology	8
Prior Audit Coverage	10

Introduction

This report presents the results of our audit of U.S. Postal Service Data and Voice Communications (Project Number 13BG009IT000). Our objective was to determine whether selected active and nonactive Postal Service facilities have the appropriate data and voice communications. This audit addresses operational risk and serves as a follow-up audit to a prior U.S. Postal Service Office of Inspector General (OIG) audit.¹ See [Appendix A](#) for additional information about this audit.

The Postal Service relies on data and voice communications to support one of the world's largest computing networks and electronic mail systems. With expenses and capital costs of \$155 million in fiscal year (FY) 2012, the Postal Service plans, monitors, reviews, and procures data and voice communications requirements throughout the Postal Service's network of facilities to ensure a communications environment that supports its changing business needs. The Telecommunication Services² group manages this data and voice communication infrastructure using a wide range of telecommunication and network technologies.³

Conclusion

The Postal Service provided appropriate data and voice communications for the active and nonactive facilities we reviewed. To ensure appropriate levels of data and voice communications, the Postal Service routinely monitors and reviews data and voice services and contracts nationwide. To improve the monitoring of data and voice communications, the Postal Service implemented and enhanced computer applications to provide accurate data and voice inventory and payment processes. The Telecom Services Site Verification project⁴ included the review of sites to determine whether they were valid and active and whether the data communications were still appropriate. In addition, the Field Phone Line Reduction project⁵ reviewed and removed unused voice communications. The Postal Service estimates annual savings of \$4 million from efforts to recomplete its telephone line contracts and \$8.8 million from recompeting data service contracts.

¹ *National Voice Services – Savings Opportunities* (Report Number: IS-AR-05-016, dated September 30, 2005).

² Telecommunication Services is part of the Enterprise Access Infrastructure area, which manages all access to Postal Service Information Technology (IT).

³ Network technologies include wired, wireless, and satellite networks.

⁴ Telecom Services Site Verification Project (Request For Action #12-00004, Issue Date: January 31, 2012, Required Completion Date: February 17, 2012).

⁵ Field Phone Line Reduction Project (Request For Action #12-00001, Issue Date: October 18, 2011, Required Completion Date: January 18, 2012).

Data and Voice Communications

Our audit determined that data and voice communication services were appropriately configured for active facilities and discontinued at nonactive facilities. The Postal Service monitors data and voice communication technology and related contracts to ensure the appropriate types of services are available and their costs are reasonable. The Telecommunication Services group initiated these monitoring projects in response to prior OIG findings, as part of general cost-saving efforts, and to make efficient use of technology. Continuously reassessing data and voice communication assets ensures use of optimal services and resources.

Our audit determined the Telecommunication Services group implemented solutions to centrally manage and support data and voice communications. In response to a prior OIG audit, the Postal Service implemented ProfitLine⁶ and further enhanced it to implement the Telecom Ordering and Management Environment (TOME).⁷

TOME provides an inventory of all telephone lines and reporting to facilitate monthly management reviews of telephone line configurations at their locations. In addition, Telecommunication Services implemented Telecommunications Expense and Inventory Management (TEM)⁸ that combines service ordering, provisioning, acceptance, operational oversight, and bill certification for data communications. [Table 1](#) provides details on these systems.

⁶ A vendor-supplied, web-based service that collects local voice telephone bills, provides a preliminary analysis, passes the statement information, collects payment from Postal Service Headquarters Finance via electronic data interchange, and provides timely payment to the local telephone companies.

⁷ A commercial off-the-shelf software that provides local voice telephone ordering, provisioning, and invoicing services.

⁸ Tracker of telecom inventory, billing, and invoicing processes.

**Table 1: Telecommunication Services
Computer Applications in Support of Operations**

Application Name	Start Date	Description	Functionality	Comment
ProfitLine	2006	Telephone lines for all facilities in the entire Postal Service	Provide centralized location for the voice services.	Project was result of OIG finding and recommendation.
TEM	2011	Data Services, Facility Details, Vendor Invoices, Invoice Review and Reconciliation	Provide centralized location for the services.	Project involved large number of vendors and services within one system.
TOME	2013	Enhancement to ProfitLine's MyTelcoManager (MTM) ⁹	Improve centralized location for voice services.	Project was result of enhancements needed for application.

Source: Postal Service Enterprise Information Repository.

Telecommunication Services completed several projects to improve technology, provide cost savings, ensure revenue protection, fulfill legal requirements, and support new computer implementations within Postal Service operations, as shown in [Table 2](#).

⁹ MTM is the intelligent web platform designed to help maximize the business value for communications products and strategies through improved visibility and control.

Table 2: Telecommunication Services Highlights of Projects

Subject	Purpose	Start Date	Completion Date	Results
Telecom Services Site Verification	This project (Ping project) determined whether a site was valid and active and whether broadband service was still required.	1/31/2012	2/17/2012	Cost savings.
Field Telephone Line Reduction Project	Removed unused telephone lines.	10/18/2011	1/18/2012	Cost savings.
Upgrade of Vehicle Management Facility Solutions for Enterprise Asset Management (SEAM) ¹⁰ kiosks from Advance Computing Environment2 (ACE2) to ACE3 ¹¹	Upgraded workstations to improve network connectivity and bandwidth in support of SEAM project implementation.	3/19/2013	Completion by the end of scheduled ACE3 deployment, scheduled for Quarter 4, FY 2015, or as soon as current workstation requires replacement.	Support other projects.
Installation of Passive Adaptive Scanning System (PASS) ¹² Access Points in Delivery Units at Processing and Distribution Centers/Facilities	Implemented new scanning technology using data network transmissions to recover postage shortages and deter postage fraud.	3/12/2013	Completion by schedule of PASS Program Office; no later than May 31, 2013.	Support other projects; revenue protection.
ProfitLine/MTM Migration to Tangoe/TOME	Migrated the current system to TOME - invoice review and inventory management for local telephone lines.	2/12/2013	3/2/2013	Improvement.
Dial-Up Site Verification	Provided network connectivity to all retail offices for credit card transactions; addressed the Payment Card Industry Data Security Standard (PCI-DSS) ¹³ requirement of encryption on the credit card device.	3/19/2013	4/2/2013	Supporting PCI-DSS requirements.

Source: IT Communications Central: Request For Action 2013 and For Your Information 2013.

¹⁰ SEAM provides an enterprise solution for inventory management, inventory/warehouse operations, supply chain planning, and service management to effectively manage and service Postal Service-installed equipment and deployed vehicles and tracking of service events throughout their lifecycle.

¹¹ ACE2 to ACE3 is the migration from the previous workstation environment to an updated workstation.

¹² PASS includes units of overhead camera that captures Arrival-at-Unit scan events and announces potential short paid, unpaid (duplicate, counterfeited, and so forth), out-of-zone, and Electronic Verification System sampling parcels.

¹³ PCI-DSS is a comprehensive standard the PCI Security Standards Council (SSC) developed to enhance the security of credit or debit card data. The standard includes specifications, tools, measurement, and support resources to help ensure the safe handling of sensitive information. It applies to all organizations that hold, process, or exchange cardholder information from any card issued by a member of the PCI SSC. The standard provides a framework for developing a robust data security process that includes preventing, detecting, and reacting to security incidents.

Telecommunications Services also created an application to monitor network activity and provide real-time reporting on the availability of network transmissions supporting data communications, as shown in the sample report from the system in [Table 3](#).

Table 3: Telecommunication Services Network Dashboard

UNITED STATES POSTAL SERVICE
LAST UPDATE: 4/17/2013 2:34:41 PM

<<< PROTOTYPE >>>
1 Hard Down
2 Partial Downs

MONITORING OF MAIL PROCESSING PLANTS
(Toggle Full Screen - Press F11)
[Show Details](#)

STATUS	LOCATION	CITY	STATE	VENDOR
■	NORTH HOUSTON P&DC	NORTH HOUSTON	TX	VzB
■	LOS ANGELES P&DC	LOS ANGELES	CA	VzB
■	LAKELAND P&DC	LAKELAND	FL	VzB
■	ANCHORAGE P&DC	ANCHORAGE	AK	ATT
■	BIRMINGHAM MPA	BIRMINGHAM	AL	ATT
■	BIRMINGHAM P&DC	BIRMINGHAM	AL	ATT
■	DOTHAN DDU	DOTHAN	AL	VzB
■	HUNTSVILLE P&DF	HUNTSVILLE	AL	ATT
■	MOBILE P&DC	MOBILE	AL	VzB
■	MONTGOMERY P&DC	MONTGOMERY	AL	ATT
■	SKYLAND DDU	TUSCALOOSA	AL	ATT
■	NORTHWEST ARKANSAS P&DF	FAYETTEVILLE	AR	ATT
■	FORT SMITH CSF	FORT SMITH	AR	VzB
■	HARRISON DDU	HARRISON	AR	VzB
■	NORTHEAST ARKANSAS P&DF	JONESBORO	AR	ATT
■	LITTLE ROCK P&DC	LITTLE ROCK	AR	ATT
■	FLAGSTAFF MPO	FLAGSTAFF	AZ	VzB
■	NORTH VALLEY DDC	PHOENIX	AZ	XOC
■	PHOENIX P&DC	PHOENIX	AZ	XOC
■	WEST VALLEY DDC	PHOENIX	AZ	XOC
■	TUCSON P&DC	TUCSON	AZ	ATT
■	ANAHEIM P&DF	ANAHEIM	CA	VZB
■	BAKERSFIELD P&DC	BAKERSFIELD	CA	ATT
■	LOS ANGELES NDC	BELL	CA	XOC
■	INDUSTRY (CITY OF) P&DC	CITY OF	CA	VzB

Experienced Failed Connection(s) in Past 8 Hours:	CITY	STATE	LAST FAILED
■ LAKELAND P&DC	LAKELAND	FL	4/17/2013 2:34:30 PM
■ LOS ANGELES P&DC	LOS ANGELES	CA	4/17/2013 2:34:30 PM
■ NORTH HOUSTON P&DC	NORTH HOUSTON	TX	4/17/2013 2:34:29 PM
■ QUAD CITIES P&DF (ROCK ISLAND)	MILAN	IL	4/17/2013 2:19:22 PM

Source: Telecommunication Services Mail Processing Connectivity Dashboard.

Recommendation

Since management controls over data and voice communications were determined to be adequate, we are issuing this report without any further recommendations. Because we did not make any recommendations, management chose not to respond formally to this report.

Appendix A: Additional Information

Background

The Postal Service IT area includes Enterprise Access Infrastructure (EAI).¹⁴ Within EAI, the Telecommunication Services group monitors and maintains data and voice communications to provide the Postal Service with high-quality, reliable, and cost-effective voice and data communications through management of a wide range of technologies including:

- All transmission technologies used on behalf of the Postal Service at Postal Service or non-Postal Service facilities (such as local area networks; wide area networks; voice communications; videoconferencing systems; voice messaging systems; desktop video communications; satellite broadcasts; facsimile transmission; and all other transmissions over landline, wireless or Internet-based networks).
- All types of information and network services and data, voice, image, and multimedia communications, regardless of transmission technology.

Telecommunication services have significantly evolved over the last 11 years, and they are increasingly critical to Postal Service operations:

- Mail processing operations now require network connectivity.
- PCI-DSS requires encryption of credit/debit card transactions, necessitating network connectivity.
- Transactions conducted via websites, such as USPS.COM,¹⁵ are an increasing source of revenue.
- Online applications developed over the last decade, such as *PostalOne!*,¹⁶ require network connectivity.

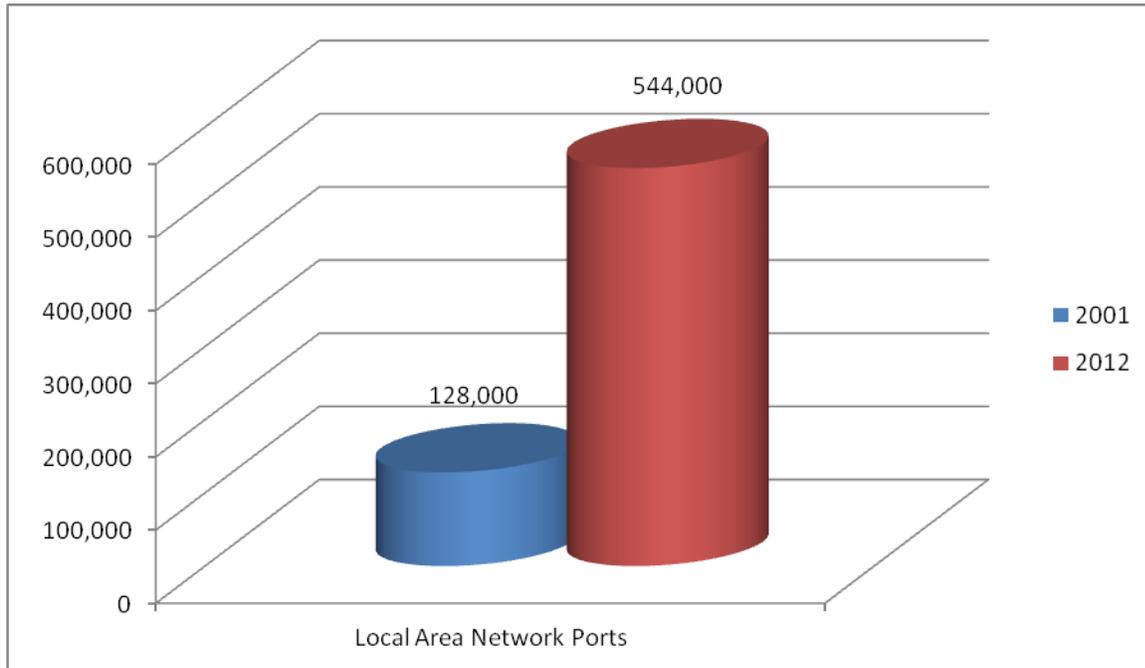
Figures 1 through 3 provide examples of growth in Postal Service telecommunication services over the past 11 years:

¹⁴ EAI manages all access to the Postal Service IT infrastructure and provides the operational support, deployment, and strategic direction for the enterprise.

¹⁵ USPS.com is the official website for the Postal Service, located at www.usps.com/.

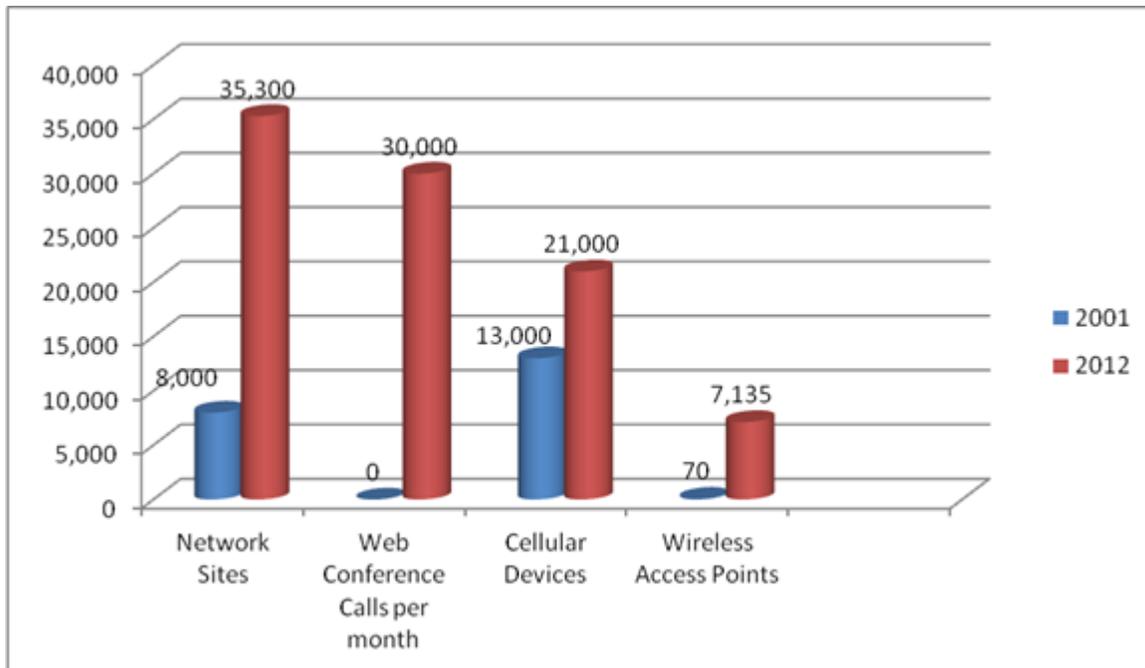
¹⁶ *PostalOne!* offers mailers with an efficient, cost-effective, and seamless process from mail preparation to mail delivery. The application facilitates the integration of business processes to expedite mail acceptance and better support Postal Service operations.

Figure 1: Growth in Local Area Network Ports

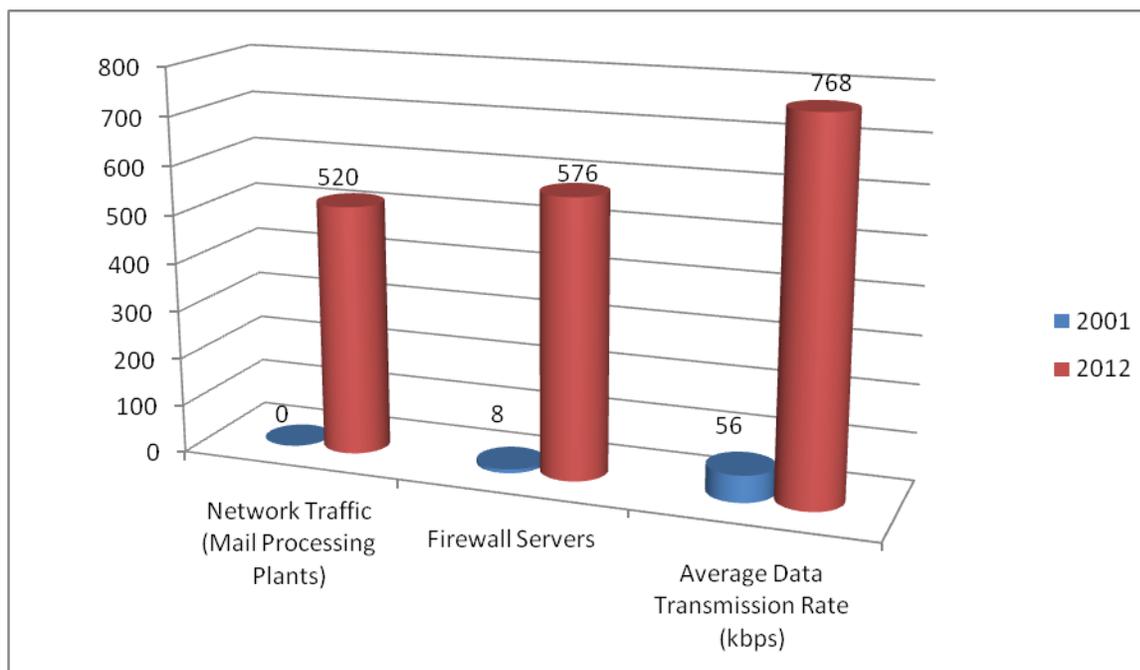


Source: Telecommunication Services chief information officer (CIO) update to Joseph Corbett, chief financial officer and executive vice president, dated August 5, 2012.

Figure 2: Growth in Network Sites, Devices, and Conference Calls



Source: Telecommunication Services CIO update to Joseph Corbett, chief financial officer and executive vice president, dated August 5, 2012.

Figure 3: Growth in Plant Sites, Firewall Servers, and Data Throughput

Source: Telecommunication Services CIO update to Joseph Corbett, chief financial officer and executive vice president, dated August 5, 2012.

Objective, Scope, and Methodology

Our objective was to determine whether selected Postal Service facilities have appropriate data and voice communications and serve as a follow up to prior OIG audit work. To accomplish our objective, we:

- Interviewed Postal Service personnel in Facilities, IT, Finance, and Delivery Operations to determine processes and procedures to manage telecommunication services and facilities.
- Judgmentally selected four districts¹⁷ to review the appropriateness of their data and voice communication services.
- Randomly selected 40 active facilities from the four districts to review data and voice communication services.
- Randomly selected 40 nonactive facilities from the same four districts to verify data and voice services were terminated.
- Extracted data from the TEM system and evaluated the type of data services for each of our sampled facilities.

¹⁷ The Postal Service districts included Gateway, MO; Greensboro, NC; Northland, MN; and San Francisco, CA.

- Reviewed data from ProfitLine for each of our sampled facilities and confirmed monthly telephone line reviews to ensure appropriateness based on each facility's needs.
- Validated the existence of field IT procedures for the removal of data and voice communications at our sampled districts.
- Discussed data and voice projects with Postal Service managers and reviewed highlights of their cost saving, revenue protection, and PCI-DSS requirements projects.
- Curtailed our review at the initial 40 active and 40 nonactive facilities.

We conducted this performance audit from November 2012 through June 2013 in accordance with generally accepted government auditing standards and included such tests of internal controls as we considered necessary under the circumstances. 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit survey objective. We discussed our observations and conclusions with management on June 5, 2013, and included their comments where appropriate.

We assessed the reliability of Postal Service application data by analyzing and obtaining supporting documents, where needed. We determined that the data were sufficiently reliable for the purposes of this project.

Prior Audit Coverage

Report Title	Report Number	Final Report Date	Monetary Impact (in millions)
<i>National Voice Services – Savings Opportunities</i>	IS-AR-05-016	9/30/2005	\$9,883,972
<p>Report Results: The Postal Service could capture savings by performing a comprehensive inventory and assessment of local telephone line needs in accordance with existing policy. The audit identified costs for unneeded telephone lines and made five recommendations to improve controls over managing and monitoring local telephone resources. Management agreed to provide guidance and specific procedures to field districts for validating telephone line inventories, evaluating needs for existing services and disconnecting unneeded lines and reporting the resulting cost savings through channels to the OIG; and to terminate unnecessary telephone lines identified during our audit. Management also agreed to establish a centralized point to manage all voice services through a web portal, redistribute certification procedures, and sample billing accounts that were audited and validated under the program. Finally, management agreed as new technology is deployed to ensure that associated telephone lines are removed that previously supported applications being replaced. Management agreed with the recommendations and corrected the issues.</p>			