



August 6, 2003

**MEMORANDUM**

**FOR:** M/IRM, John M. Streufert

**FROM:** IG/A/ITSA, Melinda G. Dempsey /s/

**SUBJECT:** Risk Assessment of USAID/Washington's Management of Telephone Services  
(Report No. A-000-03-002-S)

This memorandum is our report on the subject risk assessment. Although this is not an audit report, it does contain several suggestions for your consideration. We have reviewed your comments and they are included as Appendix II.

For your information, and as a follow-up to this risk assessment, on November 30, 2003 we will request a list of accomplishments and procedures or programs implemented and/or planned that directly relate to our suggestions.

I appreciate the cooperation and courtesy extended to my staff during the risk assessment.

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**Background**

The Telecommunications and Computer Operations Division of the Office of Information Resources Management, Bureau for Management (M/IRM/TCO), manages telephone services as well as information technology activities for USAID/Washington.

Prior to USAID's move into the Ronald Reagan Building in 1997, most of USAID's telephone services were provided by the Department of State. Thus, to the extent that USAID's need for telephone services was already provided, the Agency did not have flexibility in procuring or improving such services. According to data provided by the Telecommunications and Computer Operations Division, the cost of telephone services from 1990 to 1996 was high—\$4½ to \$6½ million per year—despite cost

control measures implemented by the Division. After the move to the Ronald Reagan Building, USAID was able to institute its own management of most of its telephone services. USAID's current budget for telephone services runs about \$2.7 million per year.

The Telecommunications and Computer Operations Division manages eight major telephone services for USAID/Washington as follows:

- Calling cards
- Cell phones
- Facsimile machines
- Local service
- Long distance service
- Network infrastructure (PBX)
- Pagers
- Telephone directory

USAID manages its telephone services through several contracted suppliers, including Sprint, Verizon, Avaya, AT&T, Nextel, and MCI. Underlying the number of services provided and the number of contracted suppliers is a constantly changing technology in the telecommunications industry. This changing technology has significantly impacted the availability and use of diverse telephone products and services for USAID/Washington. It has also added to the complexity of managing telephone communication services.

During the past decade, the Office of Inspector General has performed no audits of the management of telephone services by the Office of Information Resources Management, nor have there been any related external reviews or evaluations by other organizations. Given the lack of external independent reviews, including audits, we performed risk assessments, especially in regard to economy and efficiency, of the major telephone services of the Telecommunications and Computer Operations Division of the Office of Information Resources Management.

The General Accounting Office's (GAO) "Standards for Internal Control in the Federal Government" (November 1999) notes that internal controls should provide reasonable assurance that agency objectives are being achieved, operations are effective and efficient, and assets are safeguarded against loss. Internal controls consist of the following five interrelated components. These components are the minimum level for internal control and provide the basis against which internal control is to be evaluated.

1. Management and employees should establish and maintain a control environment throughout the agency, one which sets a positive and supportive attitude toward internal control and conscientious management.
2. Internal control should provide for a risk assessment of the risks the agency faces from both external and internal sources.
3. Internal control activities should be effective and efficient in accomplishing the agency's control objectives and help ensure that management's directives are carried out.
4. Information should be recorded and communicated to management and others within the agency who need it and in a form and within a time frame that enables them to carry out their internal control and other responsibilities.
5. Internal control monitoring should assess the quality of performance over time and ensure that the findings of audits and other reviews are promptly resolved.

This review focused on the second component—risk assessment. The GAO Standards note that the specific risk analysis methodology used can vary because of differences in agencies' missions and the difficulty in qualitatively and quantitatively assigning risk levels. This review assigned a risk exposure of high, moderate, or low for each major telephone service. A higher risk exposure simply indicates that the particular service is more vulnerable to its program objectives not being achieved or to irregularities occurring as it primarily affects economy and efficiency. Appendix I describes in detail our risk assessment scope and methodology.

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## Discussion

The Telecommunications and Computer Operations Division of the Office of Information Resources Management, Bureau for Management (M/IRM/TCO), is responsible for the following eight major telephone services.<sup>1</sup> Our assessments of the risk exposure for each of these major services, along with the factors used in rating those risks, are described below.

Telephone Service	Risk Exposure
Calling cards	Low
<b>Risk Assessment Factors</b>	
<b><u>Costs</u></b>	
<ul style="list-style-type: none"><li>• Although costs per minute are substantially higher than desk phone calls, total annual cost runs only about \$7,000 and consists only of the cost of user minutes.</li></ul>	
<b><u>Costs Transparency</u></b>	
<ul style="list-style-type: none"><li>• Detailed monthly cost data is available on a monthly basis.</li></ul>	
<b><u>Inherent Complexity</u></b>	
<ul style="list-style-type: none"><li>• No technical expertise is required for managing the approximately 300 cards issued and the total annual calls of only about 4,000.</li></ul>	
<b><u>Internal Controls</u></b>	
<ul style="list-style-type: none"><li>• There is no accurate up-to-date inventory of issued and active cards because information on cancelled and returned cards is only irregularly purged from the active file.</li><li>• Standard internal authorization forms are used for the issuance of cards, but there are no written procedures for administration of this program, whether for card requisitioning, billing reviews, inventory maintenance, etc.</li><li>• Cards received from the vendor, but not yet issued to individual employees, are not kept under lock and key.</li><li>• There is no mechanism in place to ensure the return and cancellation of cards possessed by employees being reassigned overseas (calling cards are for USAID/Washington-based employees only).</li><li>• Although detailed call data is received monthly, they are not forwarded to users for certification as required. Instead, billing reviews are essentially of the monthly total to determine if the amount is reasonable based on historically billed amounts.</li></ul>	

<sup>1</sup> Our risk assessments only covered major telephone services managed and under the control of the Telecommunications and Computer Operations (TCO) Division. In addition to the major services described in this report, TCO is also responsible for managing information technology activities, including local area networks, electronic mail services, internet connectivity, and wide area network security.

Telephone Service	Risk Exposure
Calling cards	Low
<b>Risk Assessment Factors</b>	
<ul style="list-style-type: none"> <li>Over the years, there have been a number of cases of abuse involving the use of calling cards, costing USAID several thousand dollars. However, the vendor now monitors usage for what it believes could be abusive activity and advises TCO for disposition.</li> </ul> <p><b>Monitoring</b></p> <ul style="list-style-type: none"> <li>There are no particular monitoring or reporting procedures involved with the administration of the calling card program.</li> </ul> <p><b>Planning</b></p> <ul style="list-style-type: none"> <li>There are no particular planning processes.</li> </ul> <p><b>Prior Reviews</b></p> <ul style="list-style-type: none"> <li>No independent reviews have been performed.</li> </ul>	

Telephone Service	Risk Exposure
Cell phones	Moderate
<b>Risk Assessment Factors</b>	
<p><b>Costs</b></p> <ul style="list-style-type: none"> <li>For the phones that the TCO office is responsible for administering, about \$100,000 annually is spent to cover the cost of phones, accessories, maintenance, and use charges. Because the demand for cell phones is perceived to be on the rise, this expenditure is expected to increase.</li> <li>Phones purchased start at about \$75 each, but most recent purchases are costing about \$300, which includes a standard package of accessories.</li> </ul> <p><b>Costs Transparency</b></p> <ul style="list-style-type: none"> <li>Management is mainly concerned with overall costs associated with cell phones. Unit cost, particularly per minute, is not used as a management tool in administering the program, and overall cost per minute is not readily available.</li> <li>Costs are not readily identifiable because they are not segregated within ‘umbrella’ budget codes. Furthermore, other USAID Washington offices directly procure cell phones. These costs are unknown.</li> </ul> <p><b>Inherent Complexity</b></p> <ul style="list-style-type: none"> <li>Cell phone technology, with increased capabilities and available features, is rapidly changing. Along with changes in the technology, ever-changing user plans are being offered.</li> <li>Currently, there are 150 phones, and the average monthly use of each is between 200 and 300 minutes.</li> </ul>	

Telephone Service	Risk Exposure
Cell phones	Moderate
Risk Assessment Factors	
<p><b><u>Internal Controls</u></b></p> <ul style="list-style-type: none"> <li>• Except for brief guidelines contained in the Automated Directives System, there are no documented internal control procedures.</li> <li>• Billing reviews include determining that the cell phone numbers billed are numbers contained in inventory and searching for unusually high charges to a specific phone number. Such reviews are not performed on a monthly or any set periodic basis. Whatever reviews are performed are not documented, and certification of call details is not required of cell phone users.</li> <li>• Phones are purchased and issued merely on the basis of the approval signature of the supervisor of an applicant/user. Otherwise, there is no established rationale or criteria, including type of phone or user plan.</li> </ul> <p><b><u>Monitoring</u></b></p> <ul style="list-style-type: none"> <li>• There is no reporting to management of any kind specifically devoted to cell phone matters.</li> </ul> <p><b><u>Planning</u></b></p> <ul style="list-style-type: none"> <li>• There are no specific or formal planning processes involved with cell phones.</li> </ul> <p><b><u>Prior Reviews</u></b></p> <ul style="list-style-type: none"> <li>• There have been no formal internal or external reviews of cell phone administration.</li> <li>• There have been some cases of misuse of the phones, which have been turned over to respective administrative officers for disposition.</li> </ul>	

Telephone Service	Risk Exposure
Facsimile machines	Low
Risk Assessment Factors	
<p><b><u>Costs</u></b></p> <ul style="list-style-type: none"> <li>• The total annual cost of new or replacement machines runs between \$25,000 to \$50,000. On average, about 25 machines are replaced per year at a cost of \$1,000 to \$2,000 each.</li> </ul> <p><b><u>Costs Transparency</u></b></p> <ul style="list-style-type: none"> <li>• Maintenance costs administered by another office not in our scope runs about \$3,000 annually.</li> <li>• Other Washington offices procure fax machines, the costs of which are unknown.</li> </ul> <p><b><u>Inherent Complexity</u></b></p> <ul style="list-style-type: none"> <li>• Service and operation are not technically complex.</li> </ul>	

Telephone Service	Risk Exposure
Facsimile machines	Low
Risk Assessment Factors	
<ul style="list-style-type: none"> <li>The TCO Telephone Office is responsible for administering about 150 machines in the inventory.</li> </ul>	
<b><u>Internal Controls</u></b>	
<ul style="list-style-type: none"> <li>There are no documented internal control procedures for the administration of the program.</li> <li>Discrepancies were noted in the inventory records, in such categories as quantity on hand, manufacturer, and location.</li> <li>If a machine repair is estimated to be the arbitrary amount of \$500 or more, a replacement is ordered. There are no purchase or issuance criteria otherwise.</li> <li>There is no effective control over repairs and servicing because no repair history by machine is maintained.</li> </ul>	
<b><u>Monitoring</u></b>	
<ul style="list-style-type: none"> <li>There is no reporting to management of any kind specifically devoted to fax machine matters.</li> </ul>	
<b><u>Planning</u></b>	
<ul style="list-style-type: none"> <li>There are no specific or formal planning processes involved with fax machines.</li> </ul>	
<b><u>Prior Reviews</u></b>	
<ul style="list-style-type: none"> <li>There have been no formal internal or external reviews of fax machine administration.</li> </ul>	

Telephone Service	Risk Exposure
Local service	High
Risk Assessment Factors	
<b><u>Costs</u></b>	
<ul style="list-style-type: none"> <li>Calendar years 2002 and 2003 costs were budgeted at \$870,000 and \$800,000, respectively, consisting primarily of fixed lease charges for several dedicated (trunk) lines and per-call/minute use charges with Verizon.</li> </ul>	
<b><u>Costs Transparency</u></b>	
<ul style="list-style-type: none"> <li>Costs are not precisely known because local call costs are not totally segregated from long distance costs for each vendor.</li> <li>There is no assurance that contracted rates are always used for billing USAID, and implementation schedules of rate changes are not always known.</li> </ul>	
<b><u>Inherent Complexity</u></b>	
<ul style="list-style-type: none"> <li>The management of this area requires a high level of technical knowledge to ensure the economic handling of about 160,000 local calls per month.</li> </ul>	

Telephone Service	Risk Exposure
Local service	High
<b>Risk Assessment Factors</b>	
<b><u>Internal Controls</u></b>	
<ul style="list-style-type: none"> <li>• Internal control procedures are generally not documented.</li> <li>• TCO lacks sufficient tools, information, and resources to comprehensively verify accuracy of contractor billings.</li> <li>• No mechanism is in place to ensure that, as telephone exchanges are added or changed by the local carrier, timely program changes are made to the Private Branch Exchange (PBX) to route a given call through the cheapest means.</li> <li>• TCO lacks adequate staff back-up for the highest levels of technical job skills.</li> </ul>	
<b><u>Monitoring</u></b>	
<ul style="list-style-type: none"> <li>• Software monitoring tools were cumbersome and time consuming to work with and, thus, their utility in analyzing complex traffic patterns and capacity utilization of trunk lines has not been fully reached.</li> <li>• Detailed monitoring appears to be done ad hoc and without adequate tools or resources.</li> <li>• The capacity of the dedicated trunk lines appears to be well in excess of actual traffic volume.</li> <li>• Standard performance reporting to more senior management is not required; rather, ad hoc issues are covered during regular, periodic office meetings.</li> </ul>	
<b><u>Planning</u></b>	
<ul style="list-style-type: none"> <li>• There are no extraordinary technological investments envisioned, nor are there any unique needs assessments or processes required.</li> </ul>	
<b><u>Prior Reviews</u></b>	
<ul style="list-style-type: none"> <li>• No comprehensive reviews have been made for several years.</li> <li>• Audits in other agencies resulted in significantly reduced costs.</li> </ul>	

Telephone Service	Risk Exposure
Long distance service	High
<b>Risk Assessment Factors</b>	
<b><u>Costs</u></b>	
<ul style="list-style-type: none"> <li>• Calendar years 2002 and 2003 costs were budgeted at \$843,000 and \$649,000, respectively, and consist primarily of per-call/minute charges for domestic and international long distance calls routed through Sprint and AT&amp;T.</li> </ul>	
<b><u>Costs Transparency</u></b>	
<ul style="list-style-type: none"> <li>• Total cost figures are not precisely known because some local costs are included with long distance costs.</li> </ul>	

Telephone Service	Risk Exposure
Long distance service	High
<b>Risk Assessment Factors</b>	
<ul style="list-style-type: none"> <li>• There was no assurance that contracted rates were always used for billing USAID, nor did TCO always know the implementation schedules of rate changes.</li> </ul>	
<b><u>Inherent Complexity</u></b>	
<ul style="list-style-type: none"> <li>• The management of this area requires a high level of technical knowledge to ensure the economic and efficient handling of about 33,000 long distance calls per month routed through different pricing alternatives.</li> </ul>	
<b><u>Internal Controls</u></b>	
<ul style="list-style-type: none"> <li>• Except for abbreviated guidance contained in the Automated Directives System, internal control procedures are not documented.</li> <li>• TCO lacks sufficient human resources to verify the accuracy of contractor billings; further, it is difficult to utilize software-monitoring tools. Thus, reviews are used essentially for spotting obvious problems and detecting trends, versus for verifying user minutes at contracted rates.</li> <li>• TCO lacks adequate staff back-up for the highest levels of technical job skills.</li> </ul>	
<b><u>Monitoring</u></b>	
<ul style="list-style-type: none"> <li>• Detailed monitoring appears to have been done ad hoc and without adequate tools.</li> <li>• There is no assurance that the Department of State's <i>International Voice Gateway (IVG)</i> is used to the maximum extent possible. As opposed to user charges by Sprint or AT&amp;T, the IVG is a zero-cost facility for placing international calls.</li> <li>• There is no regular, periodic review and verification, as required by regulations, that long distance calls are official, authorized calls.</li> <li>• Standard performance reporting to more senior management is not required; rather, ad hoc issues are covered during regular, periodic office meetings.</li> </ul>	
<b><u>Planning</u></b>	
<ul style="list-style-type: none"> <li>• Planning is a continuous process of evaluating USAID's technical options, then evaluating suppliers' rates and ability to deliver USAID's service needs.</li> </ul>	
<b><u>Prior Reviews</u></b>	
<ul style="list-style-type: none"> <li>• No comprehensive reviews have been made for several years.</li> <li>• Audits in other agencies resulted in significantly reduced costs.</li> </ul>	

Telephone Service	Risk Exposure
<b>Network infrastructure (PBX—Private Branch Exchange)</b>	<b>Moderate</b>
<b>Risk Assessment Factors</b>	
<b><u>Costs</u></b>	
<ul style="list-style-type: none"> <li>• USAID assumed management of the PBX from the Department of State in 1998. By doing so, TCO stated it has reduced operating costs from about \$2.5 million to less than \$1 million per year.</li> <li>• Calendar years 2002 and 2003 costs were budgeted at \$850,000 and \$900,000, respectively, consisting primarily of maintenance, miscellaneous equipment, and three full-time, on-site Avaya technicians (at an annual cost of about \$320,000).</li> <li>• Future investment costs for replacing the existing PBX, up to approximately 3,000 desktop telephones, and related network equipment could be several million dollars.</li> </ul>	
<b><u>Costs Transparency</u></b>	
<ul style="list-style-type: none"> <li>• Pricing information for maintenance, equipment, and service technicians is readily available.</li> </ul>	
<b><u>Inherent Complexity</u></b>	
<ul style="list-style-type: none"> <li>• The physical configuration of the PBX and the wiring to support the USAID/Washington’s telephony operation in the Ronald Reagan Building is highly complex.</li> <li>• This area requires a high level of technical knowledge to ensure that PBX services are provided in the most economic, efficient, and timely manner over the several alternative telephone routings.</li> <li>• A high level of technical expertise is required to oversee the Avaya contract and technicians.</li> </ul>	
<b><u>Internal Controls</u></b>	
<ul style="list-style-type: none"> <li>• Internal control procedures are generally not documented.</li> <li>• Miscellaneous purchases of equipment, e.g., new or replacement desk phones or special non-standard wiring jobs, are done under a Blanket Purchase Agreement (BPA) with Avaya. By the very nature of BPAs, scrutiny of purchases is minimal.</li> <li>• Adequate staff back-up for the highest levels of technical job skills is lacking. The work is mostly done by contract, and little risk exists that essential work will not be performed when required.</li> </ul>	
<b><u>Monitoring</u></b>	
<ul style="list-style-type: none"> <li>• The on-site (vendor-supplied) technicians monitor PBX operations, perform services, and correct problems as they occur.</li> <li>• In addition, off site, Avaya monitors the performance of critical PBX components, e.g., routers and switches.</li> <li>• There was nothing immediately available for use in the PBX room for fire protection.</li> <li>• A standard reporting (format) to more senior management is not</li> </ul>	

Telephone Service	Risk Exposure
<b>Network infrastructure (PBX—Private Branch Exchange)</b>	<b>Moderate</b>
Risk Assessment Factors	
<p>required; rather, ad hoc issues are covered during regular, periodic office meetings.</p> <p><b><u>Planning</u></b></p> <ul style="list-style-type: none"> <li>To date, a formal needs assessment has not been performed, even though an extraordinary investment may be required to replace the PBX system and desk phones with new and evolving technology over the next two to five years.</li> <li>Telephony operations, especially the PBX, are vulnerable to major disruptions of service during a crisis situation.</li> </ul> <p><b><u>Prior Reviews</u></b></p> <ul style="list-style-type: none"> <li>A <i>Disaster Recovery Analysis and Planning</i> review was performed by Avaya in October 2002, which served as a basis for detailed recovery planning.</li> <li>Otherwise, no prior audits or reviews have been done in this area for the last several years.</li> </ul>	

Telephone Service	Risk Exposure
<b>Pagers</b>	<b>Low</b>
Risk Assessment Factors	
<p><b><u>Costs</u></b></p> <ul style="list-style-type: none"> <li>Pager leasing and service costs of about \$25,000 annually are the only costs incurred.</li> <li>The simplest pagers lease for about \$40 per year, whereas special-use pagers (e.g., for hearing impaired) lease for about \$300 per year.</li> </ul> <p><b><u>Costs Transparency</u></b></p> <ul style="list-style-type: none"> <li>Costs involved are readily available and known.</li> </ul> <p><b><u>Inherent Complexity</u></b></p> <ul style="list-style-type: none"> <li>There is nothing technically complex about the administration or use of pagers.</li> <li>There are about 160 pagers under lease.</li> </ul> <p><b><u>Internal Controls</u></b></p> <ul style="list-style-type: none"> <li>There are no documented internal procedures for the administration of the program.</li> <li>There presently is no requirement to validate pager assignments—validation by user organizations has not been done for at least four years. TCO made a recent attempt to validate the assignments, but no response had been received from the user organizations.</li> <li>Inventory records for in-use pagers are inaccurate because control procedures are inadequate. Thus, contractor billings cannot be</li> </ul>	

Telephone Service	Risk Exposure
Pagers	Low
<b>Risk Assessment Factors</b>	
<p>adequately verified for accuracy.</p> <ul style="list-style-type: none"> <li>Accountability for pagers by employees is not required.</li> <li>There are no established criteria or rationale for the issuance of pagers.</li> </ul> <p><b>Monitoring</b></p> <ul style="list-style-type: none"> <li>There is no reporting to management of any kind specifically devoted to pagers.</li> </ul> <p><b>Planning</b></p> <ul style="list-style-type: none"> <li>There are no specific or formal planning processes involved with pagers.</li> </ul> <p><b>Prior Reviews</b></p> <ul style="list-style-type: none"> <li>There have been no formal internal or external reviews of pager program administration.</li> </ul>	

Telephone Service	Risk Exposure
Telephone directory	Low
<b>Risk Assessment Factors</b>	
<p><b>Costs</b></p> <ul style="list-style-type: none"> <li>Costs are not specifically segregated for budgeting and expense tracking purposes. They are believed to be relatively insignificant.</li> </ul> <p><b>Costs Transparency</b></p> <ul style="list-style-type: none"> <li>Costs are not known—see above.</li> </ul> <p><b>Inherent Complexity</b></p> <ul style="list-style-type: none"> <li>Programming of system changes requires technical expertise.</li> <li>Personnel changes, such as rotations and reassignments, require multiple changes to unlinked, but interrelated, databases consisting of about 12,000 records.</li> </ul> <p><b>Internal Controls</b></p> <ul style="list-style-type: none"> <li>The computer-based directory identifies how to make overseas directory changes.</li> <li>A detailed “how to” procedure was written in December 2002.</li> </ul> <p><b>Monitoring</b></p> <ul style="list-style-type: none"> <li>Monitoring of the database accuracy is an Agency-wide responsibility and appears to be generally done in a satisfactory manner.</li> <li>A standard reporting (format) to more senior management is not necessary; rather, ad hoc issues are covered during regular, periodic office meetings.</li> </ul> <p><b>Planning</b></p> <ul style="list-style-type: none"> <li>There are no specific planning processes, but requirements are</li> </ul>	

Telephone Service	Risk Exposure
Telephone directory	Low
<b>Risk Assessment Factors</b>	
considered in the normal course of work.	
<b><u>Prior Reviews</u></b>	
<ul style="list-style-type: none"> <li>• There have been no formal internal or external reviews of telephone directory administration.</li> </ul>	

**Conclusion**

Our risk assessment of the Telecommunications and Computer Operations Division of the Office of Information Resources Management, Bureau for Management (M/IRM/TCO), covered eight telephone services and reached the following conclusions.

Telephone Service	Risk Exposure		
	High	Moderate	Low
Calling cards			✓
Cell phones		✓	
Facsimile machines			✓
Local service	✓		
Long distance service	✓		
Network infrastructure (PBX – Private Branch Exchange)		✓	
Pagers			✓
Telephone directory			✓

Based on these assessments, we suggest that the Office of Information Resources Management focus its efforts on mitigating the higher risks associated with the areas identified above, i.e., the local and long distance telephone services (see page 16).

In addition, we are making the following suggestions, which address issues that cut across several or all of the areas that we assessed, regardless of risk exposure:

- Written procedures are useful to standardize required or desired internal control actions and to serve as guidelines for any new staff, as well as for cross-training of current staff. These should include inventory control and billing review procedures that produce a sound basis for the administrative approval (or rejection) of contractor bills.
- Agency standards for the rationale (or criteria) of equipment issuance are necessary.

- Accountability standards should be formalized and required of employees who are issued equipment.
- A rationale for the Agency policy allowing telephony equipment procurement by other Bureaus, whether with operating or program funds and for which there is no centralized control, should be reevaluated.
- To afford adequate backup of TCO supervision and expertise in the office, one or more of the TCO staff positions should be upgraded to include higher-level telephony technical skills. This upgrade should be viewed as a prerequisite to implementing many of the suggestions contained in this report.
- Budgets and expenditure tracking should be realigned to the major functional telephone service areas we assessed because certain costs are not easily distinguishable using the current coding system.

### **Calling cards**

- The need for calling cards should be revalidated with all employees currently holding cards, and specific accountability should be established.
- Procedures need to be established to ensure that departing or rotating employees return telephone cards.
- Spare cards that have not been issued need to be secured in a locked desk or container.

### **Cell phones**

- Management needs to establish improved cost visibility for determining trends, cost variances and potential impact on budget requirements.
- Criteria and thresholds should be established for identifying calls that are to be included in a regular, periodic call detail certification process (see long distance below).
- To prevent unrestrained demand, criteria or a rationale should be established as a basis for issuing a cell phone, as well as for issuing cell phone accessories.

### **Facsimile machines**

- Criteria should be established as the basis for issuing fax machines, including a standard such as number of employees per machine. In addition, use records should be maintained to determine if the need for a replacement or new machine could be filled by a little-used machine already in inventory .
- Service and repair history records should be maintained to help effect control over repairs and serve as a basis for replacements.

### **Local service**

- A comprehensive analysis needs to be performed in order to identify with each provider the optimal number of leased dedicated trunk lines and overall optimum utilization, and to remove excess capacity (lines).
- A monthly (electronic) review needs to be implemented that compares minutes billed for all calls to actual minutes independently determined, and that compares all those call rates billed to contracted rates.

### **Long distance**

- A detailed analysis (electronic) of all calls made since inception of Federal Telecommunications Service (FTS) 2001 (and as revised) contracts to date should be performed to determine rates and lengths of all calls as billed versus the rates as per contracts and lengths as per monitoring software. Subject to allowability per contract, requests for any reimbursements from vendors per these analyses should be submitted.
- A procedure to assure that TCO obtains on a timely basis the changes that are made to the FTS 2001 rates should be implemented. Then, as these rate changes are obtained, they need to be programmed into the PBX so that the most economical rate between Sprint and AT&T is used on a country-by-country basis for the given effective rate periods under the FTS 2001 contracts.
- A monthly (electronic) review comparing minutes billed for all calls to actual minutes independently determined and comparing all those call rates billed to contracted rates should be implemented.
- A regular, periodic call detail certification procedure for long distance calls should be implemented.

### **Network infrastructure (PBX)**

- As a follow-on to the October 2002 Disaster Recovery Analysis and Planning Report, the highest priority security and disaster concerns need to be identified and provided for. At a minimum, fire-fighting equipment, for example, CO2 bottle(s), should be immediately placed in the PBX rooms.
- TCO should consider having performed a feasibility study covering all aspects for the replacement of the PBX (and replacement telephones as needed). This study should also identify future budgeting requirements for this potentially extraordinary investment.

### **Pagers**

- An immediate follow-up should be initiated of TCO's recent attempt to validate pager assignments, as well as to determine the continued need for pagers and to establish accountability on the part of employees using them. This should also help to establish a new, valid inventory.
- Any excess pagers need to be returned to the supplier and termination of lease billings needs to be assured.

### **Telephone directory**

- Databases should be linked to enable more efficient automatic updates, which in turn would provide improved accuracy.

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In response to our draft report containing the above suggestions, the Telecommunications and Computer Operations Division (Office) of the Office of Information Resources Management noted that some changes had been contemplated during the period of the risk assessment. The Office also asserted that, as a result of that process and our suggestions, some changes have already been implemented and additional changes are planned. For example:

- After identifying that USAID/Washington had been significantly overcharged for international calls, the Office obtained an offer of reimbursement from the vendor. In addition, the Office plans on directing USAID/Washington staff to better utilize government and other currently available "toll free" links and, thereby, reduce further long distance costs.

- After completing a comprehensive utilization analysis, the Office is significantly consolidating and reducing its number of dedicated trunk lines, thereby reducing its local phone service costs. In addition, the Office plans to further reduce these costs by switching to lower cost local phone service vendors, followed by another reduction in trunk lines.
- For the other major telephone service areas that we concluded were not at high risk as to economy and efficiency, the Office's plans include
  1. installation of a system that will provide some emergency backup service to the PBX and enable the Office to better evaluate the potential for its eventual transition from the current PBX system;
  2. improved budgeting visibility, issuance criteria, and inventory control procedures for cell phones and fax machines;
  3. improved inventory and security procedures over long distance calling cards; and
  4. new PC software that will enable receipt and review of faxes on the PC, thereby reducing the use of and need for fax machines in the Ronald Reagan Building.

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**Scope and  
Methodology****Scope**

The Office of Inspector General, Information Technology and Special Audits Division, conducted a risk assessment, especially in regard to economy and efficiency, of major telephone services managed and under control of the Telecommunications and Computer Operations Division of the Office of Information Resources Management, Bureau for Management (M/IRM/TCO). As such, it did not cover USAID's overseas telephony-related operations, nor the other information technology activities for which the Telecommunications and Computer Operations Division is responsible: local area networks, electronic mail services, internet connectivity, wide area network, computer operations, etc.

This risk assessment was not an audit. The risk assessment covered operations principally for fiscal year 2002 and operating expenditures of about \$2.7 million. Costs related to USAID's human resources were not reviewed; thus, any mention of costs throughout this report does not include them. The risk assessment fieldwork was conducted at USAID headquarters in Washington, D.C., from November 25, 2002 to March 31, 2003.

Our risk assessments of the Telecommunications and Computer Operations Division's major telephone services have the following limitations in their application:

- First, we assessed risk at the major service level only, not at the Division or Office level.
- Second, we assessed risk only. Our assessments were not sufficient to make definitive determinations of the effectiveness of internal controls for major services. Consequently, we did not generally (a) assess the adequacy of internal control design, (b) determine if controls were properly implemented, and (c) determine if transactions were properly documented. If we were able to make these types of determinations within the scope of our work, we reported on them accordingly as part of our risk exposure assessments.
- Third, higher risk exposure assessments are not definitive indicators that program objectives were not being achieved or that irregularities were occurring. A higher risk exposure simply indicates that the particular service is more vulnerable to such events.
- Fourth, risk exposure assessments, in isolation, are not an indicator of management capability due to the fact that risk assessments consider

both internal and external factors, some of which are outside the span of management control.

- Fifth, comparison of risk exposure assessments between organizational units is of limited usefulness due to the fact that risk assessments consider both internal and external factors, some being outside the span of management control.

## **Methodology**

We interviewed officials as well as reviewed related documentation of major telephone services performed by the Telecommunications and Computer Operations Division. These activities covered background information, organization, management, budget, relevant laws and regulations, staffing responsibilities, prior reviews, internal controls, and risks (i.e., vulnerabilities). Our review of the Telecommunications and Computer Operations Division's documentation was limited and judgmental in nature and conducted principally to confirm oral attestations of management.

We identified the Telecommunications and Computer Operations Division's major telephone services using the input from the Manager of the Voice Telecommunications Group and based primarily on the significance of each major telephone service. We determined risk exposure for all major telephone and related services, e.g., the likelihood of significant abuse, illegal acts, and/or misuse of resources; failure to achieve program objectives; and noncompliance with laws, regulations and management policies as it primarily affects economy and efficiency.

We assessed overall risk as high, moderate, or low. A higher risk exposure simply indicates that the particular telephone service was more vulnerable to its program objectives not being achieved or that irregularities were occurring.

We considered seven risk assessment factors as they primarily affect economy and efficiency. The specific risk assessment factors were chosen in order to provide us a sufficient basis (although not necessarily a comprehensive one) to make our professional judgments of risk. Our risk assessment factors were as follows.

- (1) Costs—Total and unit annual costs (fiscal year 2002) and known future extraordinary investment costs.
- (2) Costs transparency—The ready availability to management of data to determine both total and unit costs of the service.

- (3) Inherent complexity—Complexity based on technical issues and number of transactions or items requiring management action.
- (4) Internal controls—Known aspects of documented internal control procedures, including billing reviews, inventory, procuring, staffing, and acknowledged weaknesses.
- (5) Monitoring—Reporting requirements to more senior management and other oversight mechanisms.
- (6) Planning—Planning for or assessment of needs, including future technology investment requirements.
- (7) Prior reviews—Prior reviews of the service from external sources, internal sources, required annual internal control assessments, or reported cases of abuse or fraud.

As part of the assessment methodology, we identified, understood, and documented (only as necessary) relevant internal controls, and we determined what was already known about the effectiveness of those controls. Our resulting assessment of risk was based on professional judgment assessing the above varied risk assessment factors. Consequently, we did not employ an overall materiality threshold for assessing risk because the combination of these varied risk factors cannot be readily reduced collectively to one strict overall numerical scoring system or materiality threshold.

**Management  
Comments**

## MEMORANDUM

TO: IG/A/ITSA, Melinda G. Dempsey

FROM: M/IRM/TCO, Gretchen Larrimer

DATE: July 3, 2003

SUBJECT: M/IRM/TCO Comments on IG's Risk Assessment of USAID/Washington's Management of Telephone Services (Report No. A-000-03-00X-S)

M/IRM appreciates the interest, thoughtfulness and courtesy shown by IG staff during the risk assessment of USAID/W's management of telephone services.

As you know, some changes were being contemplated during the period of the risk assessment. As a result of that process and the suggestions in IG's Risk Assessment, some changes have already been implemented and some others are planned. Accordingly, IRM/TCO has the following comments, grouped by functional area.

Long Distance Services

IRM/TCO will tighten security procedures for unused long distance calling cards. In the future they will be kept in a locked desk or container. The Personnel Locator System (PLS) is now being used as a means to update the inventory of calling cards. This allows IRM/TCO to readily identify and cancel calling cards for staff who are no longer assigned to USAID/W, because the PLS contains organizational assignments for USAID staff. Additionally, the PLS is routinely modified by the telephone group when an employee leaves USAID or goes overseas, so they can see if an employee's card needs to be canceled when the employee leaves. The telephone group routinely checks for calling card impact when notified of an employee's departure from USAID/W.

During the period of the risk assessment, IRM/TCO had reviewed charges of both of our commercial long distance vendors, AT&T and Sprint. IRM/TCO had tentatively concluded that USAID was being overcharged for international calls by a large amount by AT&T and by a much smaller amount by Sprint. Discussions with AT&T have resulted in AT&T's identification of the cause of the erroneous billing, implementation of corrective action, and an offer of reimbursement. Continued discussions with Sprint eventually resulted in a satisfactory explanation of the discrepancy. IRM has asked both vendors to provide their rates for the next year of

their contract and to provide detailed explanations on how international call charges will be calculated.

However, we believe that even more savings can result if USAID/W's calls to overseas missions can be made over dedicated government links, instead of using any commercial long distance vendor. USAID can benefit from cost savings by reducing international phone costs through enabling and encouraging the use of "free" toll bypass methods. USAID has two such methods available: the Voice Over Internet Protocol (VOIP) links provided by IRM's telecommunications upgrade project and, to a lesser extent, the Diplomatic Telecommunication Service's International Voice Gateway (IVG).

During the last two years, IRM has installed WARP/VOIP links to over 50 missions, enabling most calls to these missions to be made toll free. Most missions use this capability heavily, but traffic analysis shows that less than 5 percent of international calls from USAID/W currently use these means. Consequently, IRM/TCO will focus on finding ways to change the calling patterns of USAID/W staff as a potentially rewarding way of cutting long distance costs.

#### Cell Phones and Pagers

IRM/TCO will establish a new budget line item within the IRM budget system beginning in FY 2004 to be called Wireless Communications. This line item will break out cell phone and pager costs from other voice communications costs, thus giving increased visibility to this category.

IRM/TCO agrees that criteria for issuance of wireless devices/services should be reviewed and documented. In addition, policy for funding of cell phones and cell phone service will be documented.

IRM/TCO will formally document inventory control procedures for cell phones and pagers and train staff in the new procedures.

IRM/TCO will update its inventory of pagers and validate current requirements. Unneeded pagers will be returned to the vendor. IRM will keep unused pagers in a locked desk or cabinet.

#### Faxes

IRM/TCO plans to provide every PC user with access to USAID/W's voicemail system via desktop software called Message Manager. Once the software is installed, a fax can be sent to employee's telephones in RRB, and then stored in their voicemail boxes. Every person will then be able to receive and review faxes solely from their PC without the need to have them printed. (If a hard copy is needed, the recorded fax can be sent to a printer or fax machine.) We envision that this will

drastically reduce wear and tear on fax machines, increase convenience for receiving fax messages, and provide the capability of receiving faxes privately. The net effect should be to reduce the need for new fax machines. Once this installation is completed, within this calendar year, and customers have a chance to become accustomed to the new capability, we will assess the need to review standards for issuance of fax machines.

#### Local Telephone Service

IRM/TCO has now completed a comprehensive analysis of the number of trunk lines needed for local phone service based on five months of traffic. As a result of this review, an order has been submitted to Verizon to consolidate all five of the current trunk groups with Verizon into a single trunk group that can support two-way traffic and reduce the number of T-1 circuits from 13 to 8.

In addition to reviewing the number of trunks needed for local phone service, IRM/TCO has investigated other possibilities for reducing local phone service costs. Consequently, IRM is also planning to switch local phone service from Verizon to Cavalier and GTI (using GSA's WACS contract) since the cost is considerably lower than Verizon's tariff rates. According to the latest Cavalier proposal, outbound calls from RRB to Cavalier will not be charged separately, but rather the cost of the calls will be included in the set cost for the T-1 circuits. Consequently, there will be no need to compare the number of calls in a Cavalier bill to the data generated by our call detail reporting system. FYI, after Cavalier service has been shown to be reliable, IRM/TCO plans to further reduce the number of Verizon T-1s to further reduce local service costs.

#### Disaster Recovery

There is a fire extinguisher just ten paces outside of the PBX room, and the PBX staff are aware of its location. Smoke detectors in the floor and ceiling of the PBX room were checked in June 2003.

IRM/TCO is planning to install a LAN based IP phone system at the Tech Hub within the next year. This system will provide some emergency backup telephone service if the RRB PBX were to fail, and thus provide some disaster recovery functionality. It will also enable USAID to better evaluate the potential of an eventual transition at the RRB from a PBX phone system to a LAN based IP phone system.

#### Telephone Directory

IRM/TCO is currently changing the way it receives telephone directory data. IRM/SDM is replacing the Personnel Locator System with a new system called the Employee Information Management System (EIMS). In addition, IRM/TCO is

planning to integrate data from the e-mail Global Address List (GAL) into the telephone directory.