

**GOVERNMENT OF THE DISTRICT OF COLUMBIA
OFFICE OF THE INSPECTOR GENERAL**

**AUDIT OF THE
UNIVERSITY OF THE DISTRICT
OF COLUMBIA'S TELEPHONE SYSTEM**



**CHARLES C. MADDOX, ESQ.
INSPECTOR GENERAL**

OIG-9839-14-99GF-9917

July 20, 1999

GOVERNMENT OF THE DISTRICT OF COLUMBIA



OFFICE OF THE INSPECTOR GENERAL

717 14TH STREET, N.W., 5TH FL.
WASHINGTON, D.C. 20005
(202) 727-2540

July 20, 1999

Dr. Julius F. Nimmons, Jr.
President
University of the District of Columbia
Van Ness Campus, Bldg. 39
4200 Connecticut Avenue, N.W.
Washington, D.C. 20008

Dear Dr. Nimmons:

Enclosed is the final report summarizing the results of our audit of the University of the District of Columbia's (UDC) telephone system (OIG-9839-14-99GF-9917). The Office of the Inspector General conducted this audit as part of a District-wide audit of controls over telecommunications.

Our audit determined that, although the operational processes over the UDC telephone system were adequate, improvements were needed in documenting administrative controls over telephone system operations and complying with the Office of the Chief Technology Officer's Federal Telecommunications System (FTS) 2000 initiatives. Without documented procedures, the UDC's telephone system is vulnerable to the loss of "key" individuals and to inconsistent application of administrative controls. Further, the UDC is spending more for long distance services than the services available under the FTS 2000 program. We did note, however, that a Year 2000 (Y2K) assessment and work plan is underway to prepare UDC's telephone system for the century date change. Accordingly, this report contains recommendations to correct the noted deficiencies.

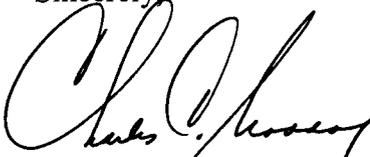
In commenting on our report, the Senior Administrator for University Services generally agreed with our recommendations and cited specific actions to correct the noted deficiencies. The full

Dr. Julius F. Nimmons, Jr., President
July 19, 1999
Letter of Transmittal for OIG-9839-14-99GF
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text of UDC's response is included as Appendix A to the enclosed report. These comments have been incorporated as appropriate in the report. We find that the response and the proposed corrective actions are acceptable.

We appreciate the cooperation and courtesies extended to our staff by UDC personnel during the audit. If you have any further questions, please feel free to call me at (202) 727-2540 or John N. Balakos, Assistant Inspector general for Audits, at (202) 727-8279.

Sincerely,

A handwritten signature in cursive script, appearing to read "Charles C. Maddox".

Charles C. Maddox, Esq.
Inspector General

Enclosure

cc: Tina H. James, Senior Administrator for University Services
Albert Davis, Telecommunications Manager

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EXECUTIVE DIGEST

OVERVIEW

This report summarizes the Office of the Inspector General's (OIG) audit of the University of the District of Columbia's (UDC) telephone system. The OIG conducted this audit as a result of findings reported in previous telecommunication system audit reports of the District's executive agencies. This audit report is the third in a series to be issued on management of telephone systems.

CONCLUSIONS

We determined that, although the operational processes over the UDC telephone system were adequate, improvements were needed in documenting administrative controls over telephone system operations and complying with the Office of the Chief Technology Officer's (OCTO) Federal Telecommunications System (FTS) 2000 initiatives. Without documented procedures, the UDC's telephone system is vulnerable to the loss of "key" individuals responsible for daily operations and to inconsistent application of administrative controls. Further, the UDC is spending more for long distance services than those available under the FTS 2000 program.

However, we did note that a Year 2000 (Y2K) assessment and work plan is underway to prepare UDC's telephone system for the century date change.

CORRECTIVE ACTIONS

We directed three recommendations to the Senior Administrator for University Services that, collectively, represent actions considered necessary to correct the deficiencies described above. The recommendations, in part, centered on:

- developing and documenting telecommunication policies and procedures for paying bills, requesting maintenance, and updating inventories;
- providing training or hiring staff to assist the Telecommunications Manager in the event of his departure; and
- initiating action to switch the UDC's long distance telephone service to FTS 2000.

The UDC provided a formal response to the recommendations in our draft report, which is included as Appendix A. In general, management concurred with the report, and indicated the actions taken or planned to address each recommendation.

INTRODUCTION

BACKGROUND

The UDC is an urban land grant institution established in 1977 as a result of the consolidation of the District of Columbia Teachers' College, Federal City College, and Washington Technical Institute. The University was established to provide access and affordable educational opportunities for District of Columbia residents.

In 1993, the UDC separated its telephone operations from the District by purchasing a private branch exchange (PBX) at a total cost of \$2,286,000. The UDC administration believed it could manage the University's telephone services more effectively and efficiently than the District.

OBJECTIVES

The audit objectives were to determine whether the UDC: (1) implemented controls to safeguard against irregularities, waste, and mismanagement; (2) managed resources effectively and efficiently; and (3) prepared its telephone system for Y2K.

SCOPE AND METHODOLOGY

Our audit focused on the administrative and operational controls over the UDC's telephone system. We selected and examined transactions from 1993, the year UDC purchased a PBX, through the second quarter of Fiscal Year 1999. All samples and tests were limited to the transactions deemed necessary to evaluate UDC telephone operations.

To accomplish the objectives, we reviewed pertinent documents; interviewed responsible UDC officials and contractor representatives; conducted facility walk-throughs; and analyzed telephone bills from service providers.

During the course of our audit, we found that OCTO, in conjunction with a contractor, is assisting UDC in its Year 2000 (Y2K) readiness efforts. In this regard, the OCTO has already conducted a Y2K assessment of the UDC's telephone system. Further, a detailed Y2K conversion work plan has been developed for UDC's telephone system. Based on the ongoing efforts of UDC and OCTO, we curtailed our audit work for this particular area.

Our audit was conducted in accordance with generally accepted government auditing standards.

RESULTS OF AUDIT

FINDING 1: DOCUMENTING ADMINISTRATIVE CONTROLS

SYNOPSIS UDC did not document its policies and procedures to accompany the processes and systems used to manage, administer, and operate the telephone system. Without documented procedures, the UDC's telephone system is vulnerable to the loss of "key" individuals responsible for daily operations and to inconsistent application of administrative controls. Currently, the Telecommunications Manager is the only University employee who thoroughly understands the telephone system. A factor that contributed to this condition was insufficient staffing.

AUDIT RESULTS Our review of the processes, systems, and supporting documentation indicated that the UDC routinely used processes and systems that were effective to make payments for telephone services, monitor the telephone system, and secure and account for telephone equipment. However, the UDC did not have the controls documented, and written policies and procedures for most of the other processes and systems used were not documented or distributed. For example, we were provided a telephone usage policy and a voice mail relocation guide; however, the telephone usage policy had not been communicated or distributed to University staff. Specifically, the Telecommunications Manager was unable to provide policies and procedures for the following processes and systems:

- payment for telephone services;
- certification and distribution of telephone charges;
- security, maintenance, and control of telephone assets;
- periodic evaluation and update of telecommunications equipment inventory and network diagrams; and
- contingency planning.

The Telecommunications Department previously had five staff members to maintain the UDC's telephone system. Currently, the Telecommunications Manager is the only UDC employee who has a thorough understanding of the managerial, administrative, and operational aspects of the UDC's telephone system. The Telecommunications Manager stated that the only other telephone service employee resigned. In addition to managing the UDC's telecommunications, the Telecommunication Manager is responsible for numerous other duties and responsibilities.

The UDC's telephone system administration and operation would be severely impaired if the Telecommunications Manager departed. The telephone system is critical to the UDC communicating internally and externally. Policies and procedures would lessen the impact of critical personnel departures, promote uniformity and consistency in

the performance of routine task and transactions, and shorten the learning curve for understanding the UDC telephone system.

RECOMMENDATIONS

The Senior Administrator for University Services:

1. Develop and document telecommunication policies and procedures for paying bills, certifying and distributing telephone charges, requesting maintenance, updating inventories and network diagrams, operating and using telephones, planning for contingencies, and implementing security and access requirements.
2. Train or hire staff or initiate contracting actions to assist the Telecommunications Manager in the event of his departure and to assist in the administrative and operational aspects of the UDC's telephone system.

UDC'S RESPONSE

UDC agreed with our recommendations and has implemented corrective actions to include an agreement with a vendor, to provide an automated system for telemetry services to end users, and to document procedures relative to telephone operations.

OIG'S COMMENTS

Actions taken by UDC are responsive to the recommendations. Further, UDC's implementation of the aforementioned recommendations should decrease it's reliance on one person for telephone system management.

FINDING 2: COMPLYING WITH OCTO'S FTS INITIATIVES

SYNOPSIS The UDC uses commercial long distance services in conjunction with Least Call Routing (LCR)¹ to control long distance cost instead of the FTS 2000 program². The UDC has not converted to FTS 2000 because the University management does not believe it will be cost beneficial, although an analysis was not prepared to support this belief. As a result, the UDC is paying more per minute for commercial long distance services than those available through FTS 2000.

AUDIT RESULTS We examined about 900 long distance calls made by the UDC to determine if the UDC pays more per minute for commercial long distance service as opposed to FTS 2000 per minute rates. Our review disclosed that the UDC pays 57 percent more for commercial long distance services than those offered through the FTS 2000 program. The UDC pays on average 11 cents per minute for long distance calls as opposed to an estimated 07³ cents per minute offered through the FTS 2000 program. The FTS 2000 representative stated that the more lines the District adds to FTS 2000 program the cheaper the long distance per minute rate. However, the UDC Telecommunications Manager stated that he does not plan to switch long distance services to FTS 2000 because he does not believe it will be cost beneficial to the UDC.

However, the OCTO in response to OIG report *The District needs controls that identify unneeded telephone lines and fraudulent charges* provided, in part, the following comments:

The OCTO is taking the following steps to ensure that **all DC Government lines** are converted to FTS 2000.

- Met with service provider to instruct that all District Government telephone lines be converted to 1010387 which is the Primary Inter-exchange Carrier (PIC) for FTS2000.
- Followed-up with a letter to service provider to re-iterate the intended conversion to FTS2000.
- Requested from service provider written verification that the conversions have been completed.

¹ Function performed by the private branch exchange (PBX) that seeks to control call cost by seeking the lowest available rate at the time the call is placed. Requires that long distance service providers load and maintain rate table on the PBX.

² The FTS 2000 is a General Services Administration (GSA) administered contract that provides domestic long-distance telecommunication services to Federal agencies in the United States, the District of Columbia, and certain territorial possessions at prices that are lower than the lowest available commercial rates.

³ An FTS 2000 service representative estimated that the FTS 2000 rate was about 07 cents per minute.

- Documented and forwarded a letter to all District Telecommunications Representatives outlining and recommending all future steps in conjunction with PIC and PIC Restrictions.

RECOMMENDATION

The Senior Administrator for University Services:

3. Initiate action to switch the University's long distance telephone service to FTS 2000.

UDC'S RESPONSE

UDC believes that its current switching system is cost effective as it relates to the total monthly calls placed and time/distance for per minute calls. However, FTS 2000 could be implemented if it is not on a shared prorated user fee for services by the agencies.

OIG COMMENTS

UDC's response is noted. However, discussions with the OCTO disclosed that telephone service costs will not be prorated to agencies and no management or administrative fees are anticipated for administering the FTS 2000 program. The OCTO stated that they fully support the recommendations made by the OIG and hopes to have all District agencies utilize FTS 2000.

University of the District of Columbia

**Office of the Senior Administrator
for University Services
4200 Connecticut Avenue, NW
Washington, D.C. 20008**

**Telephone (202) 274-5313
Fax No. (202) 274-5490**



March 4, 1999

OFFICE OF THE INSPECTOR GENERAL

**Mr. Curtis Dixon, Director
Information System Audit
717 14th Street, NW, 5TH Floor
Washington, D.C. 20005**

Dear Mr. Dixon:

Thank you for your comprehensive audit report of the University's Telecommunications System.

Agreement is noted concerning your findings and the review process for implementing the findings for corrective action. We have started through managerial reform, effective action and control of your human resource issues by signing an agreement with our vendor, to provide an automated system for telemetry services to our end users.

The Enhanced Services would assist our telecommunications person when necessary and provide an effective monitoring and audit accountability, in the absence of our staff person for any related telephone requested action.

The contract requisition was signed by the President of the University and will be submitted to the vendor on March 15, 1999 for a yearly option of services.

Question:

A concern about the University not using the FTS 2000 Long Distance Telephone Service Network.

Answer:

Our leased cost routing process with several long distance vendors for equal access within our switching system is cost effective as it relates to the total monthly calls placed and time/distance for per minute calls.

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Further review and communications with the District based FTS 2000 for acceptance after consultation, could be implemented if it is not on a shared prorated user fee for services by the agencies.

Our Telecommunications Policy and user standards for acquisition and management of the institutions telephone services will be updated and in place by April 11, 1999.

Phase One: Management (vendor enhancement services) March 15, 1999. Telecommunications Standards (local area network and change orders for services)

Phase Two - June, 1999: Local exchange carrier Network for voice/data integration between the District system and the University System by five-digit dialing.

Procurement and the Financial Management System for the Government of the District of Columbia will establish the leadership role for the interconnect between data/voice equipment of all agencies concerning the Phase Two issues.

If additional information is required please contact Mr. Albert Davis on 274-5200 or give me a call at the number listed on this letterhead.

Sincerely,



Tina H. James, Senior Administrator
for University Services

THJ:obg

cc: Mr. Albert Davis