

OFFICE OF THE AUDITOR GENERAL

The Navajo Nation

**A Follow-Up Review
of the
Department of Information Technology
Corrective Action Plan Implementation**

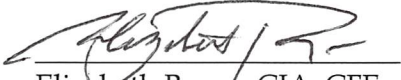
**Report No. 14-16
June 2014**

**Performed by:
Terry Becenti, Associate Auditor**



M-E-M-O-R-A-N-D-U-M

TO : Harold Skow, Department Manager
DEPARTMENT OF INFORMATION TECHNOLOGY

FROM : 
Elizabeth Begay, CIA, CFE
Auditor General
OFFICE OF THE AUDITOR GENERAL

DATE : June 30, 2014

SUBJECT : **A Follow-Up Review of the Department of Information Technology
Corrective Action Plan Implementation**

The Office of the Auditor General herewith transmits Audit Report No. 14-16, Follow-up Review of the Department of Information Technology Corrective Action Plan (CAP) implementation. Our office conducted this follow up review to determine whether DIT implemented its CAP to solve the findings presented in audit report 10-02.

Review Results

Initial Finding	Status of CAP
DIT personnel did not have all the skill sets required to evaluate the IT needs of the Navajo Nation, develop an implementation plan, budget, and oversee the IT Project Plan to fruition.	Not Implemented
DIT lacked reliable internet connectivity. Additionally, there was no mandatory offsite storage to safeguard the backup tapes. Also, the creation of a geographically separate "warm site" was not created to bring operations online with the backup tapes.	Implementation in Progress
No formal process to evaluate DIT performance measures.	Not Implemented
Limited personnel have made DIT services difficult to provide on a 24/7 basis.	Not Implemented

The follow-up review found that DIT did not demonstrate improvements to implement those elements of the CAP that are within their control. Therefore, the Office of the Auditor General recommends sanction be imposed on the Department of Information Technology and Director in accordance with 12 Navajo Nation Code, Sections 9(b) and 9(c) for failure to implement the corrective action plan.

xc: Virgil Brown Jr., Division Director
DIVISION OF GENERAL SERVICES
Jonathan Hale, Chairperson
HEALTH, EDUCATION AND HUMAN SERVICES COMMITTEE
Chrono

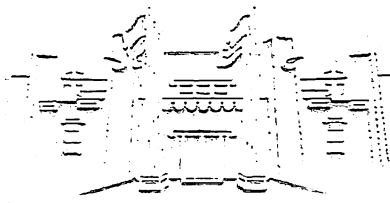


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Introduction and Background

The Navajo Nation Office of the Auditor General conducted a follow-up review of the Navajo Department of Information Technology (DIT) corrective action plan (CAP) implementation in accordance with 12 N.N.C. Section 7. The follow-up review was conducted to determine whether DIT implemented its CAP to resolve the findings presented in audit report no. 10-02. The Navajo Nation Council Budget and Finance Committee (BFC) approved the CAP on December 21, 2010 per resolution no. BFD-45-10.

DIT is responsible for information technology within the Navajo Nation. DIT is divided into four sections: 1) Administration, 2) Network Support, 3) PC Support, and 4) System Support. The Navajo Nation Council appropriates approximately \$1.6 million annually to DIT to fund its operation. DIT is within the Division of General Services with oversight by the Health, Education and Human Services Committee of the Navajo Nation Council.

Objective, Scope and Methodology

In accordance with 12 N.N.C. Section 7, the following objectives were established for the follow-up review:

- Determine whether DIT implemented its CAP
- Identify barriers, if any, that hindered the implementation of the CAP

The follow-up review primarily focused on the corrective actions that DIT has control over to implement. For the corrective actions that DIT did not have control over, the implementation of the following corrective actions were not verified. In the absence of an approved IT Plan of Operation and IT Governance Plan giving DIT clear authority across the Navajo Nation government, the implementation of the following corrective actions were deemed outside the control of the department and were not reviewed:

- 1) Migrate the Active Directory domains into a single forest Active Directory
- 2) Migrate the existing Private Class C IP schema to a Private Class A
- 3) Procure enterprise level licensing for operating systems and productivity software
- 4) Procure a single vendor for computer hardware for the Navajo Nation
- 5) Discontinue redundant internet DSL lines throughout the local Window Rock government vicinity.
- 6) Deploy an anti-virus solution government-wide
- 7) Administer Navajo Nation financial systems
- 8) Move DIT out of the Division of General Services and create an Office of Information Technology which reports to the President's Office.

In meeting our objectives, we verified records pertaining to the CAP implementation as provided by DIT. We interviewed DIT staff and consultants and reviewed documentation supporting their activities covering the period October 1, 2012 through September 30, 2013.

The Office of the Auditor General expresses appreciation to DIT for their cooperation and assistance throughout this review.

REVIEW RESULTS

FINDING I: The initial audit of DIT reported that the staff has not kept up with the changing technological needs of the Navajo Nation. DIT personnel did not have all the skill sets required to evaluate the IT needs of the Navajo Nation, develop an implementation plan, budget, and oversee the IT Project Plan to fruition.

Corrective Measures:

1. Hire consultant to: a) identify IT needs, b) generate IT Needs Statement, and c) assess staff skill sets, produce skills gap analysis, and develop a staff training plan
2. Hire IT project managers to implement complex IT projects
3. Establish an IT Steering Committee
4. Develop an IT Strategic Plan that aligns IT with Navajo Nation government operations

Follow-up results:

In fiscal year 2013, DIT contracted with an IT consultant costing approximately \$42,000 to identify IT needs and produce an IT Needs Statement. However, the IT Needs Assessment was incomplete and did not encapsulate all Navajo Nation programs. The consultants generated a list of IT resources that only covered approximately half of the Navajo Nation programs and departments. The consultant did not produce an IT Needs Statement.

In addition, the consultant did not assess staff skill sets or produce the skills gap analysis to develop a staff training plan to enhance staff skill sets. Although DIT staff attended various trainings, the lack of skills gap analysis identifying staff strengths and weaknesses undermines the intent of attending various trainings. Records show DIT expended approximately \$178,000 between FY 2010 and FY 2013 on registration fees to send staff on training. Furthermore, IT project managers were not hired to implement the Navajo Nation IT projects. The DIT director stated the IT project manager position was not established because the salary was too prohibitive even though there was no evidence that a compensation survey was conducted.

The IT Steering Committee was created in January 2014 to facilitate in defining the changing needs of the Navajo Nation and to update the IT Plan of Operation, but the committee has not yet made any significant changes to the IT policy. The IT Strategic Plan was created in June 2012 by DIT with the assistance of its consultant, however, the plan has yet to be adopted and fully implemented.

Overall, the corrective actions were not fully implemented. Therefore, the issues identified in the initial audit report remain unresolved.

FINDING II: The original audit stated that DIT lacked reliable internet connectivity. Additionally, there was no mandatory offsite storage to safeguard the backup tapes. Also, the creation of a geographically separate “warm site” was not created to bring operations online with the backup tapes.

Corrective Measures:

1. Procure backup core router for Internet Connectivity
2. Procure backup servers for Active Directory, Web and Email
3. Deploy storage area network (SAN) storage unit systems
4. Procure secure off-site storage for backup units
5. Prepare geographically separate “warm site”

Follow-up results:

DIT has replaced its core routers, implemented virtual servers and a SAN storage system to provide reliable connectivity and data redundancy. The Navajo Utilities and Communications purchased a backup core router for connectivity costing approximately \$130,000 that was installed at the DIT Data Center. In addition, DIT deployed virtual Active Directory, Web and email backup servers.

However, DIT did not acquire a secure, off-site storage for the Navajo Nation departments’ backup storage devices. The DIT director acknowledged that their backup system is located in the same building as the primary system. This poses a risk of unrecoverable departmental data in case of a catastrophic event. Based on our interviews, a staff member was made responsible to store departmental backups at his house. This arrangement compromises the physical security of departments’ confidential data and should cease immediately.

In addition, DIT did not prepare a geographically separate “warm site” for disaster recovery. DIT has not utilized the building located in Gamerco, NM that the Navajo Nation purchased for \$380,000. According to DIT, the building needs major renovations, data connections and equipment that will cost over \$400,000 before it can be used as a warm site. There is no indication that DIT considered other options such as a mobile unit or a commercial host site.

Overall, the corrective actions were deemed partially implemented. Therefore, the issues identified in the initial audit report were partially resolved.

FINDING III: The initial audit found that there was no formal process to evaluate DIT performance measures. The only measure that the department adopted was a help desk ticket system. However, the help desk call ticket system built internally by DIT was not fully implemented and had limited data to accurately evaluate performance. Consequently, there was no system in place to evaluate DIT performance.

Corrective Measures:

Implement a Help Desk tracking system

- a. Develop Help Desk Operating Procedures
- b. Procure Help Desk Software
- c. Implement Help Desk Software

Follow-up results:

DIT procured help desk software in November 2010 costing approximately \$9,000 and developed its own help desk operating procedures. A consultant was hired to train the DIT staff to implement the software during the installation process. However, DIT could not produce a management report from its tracking system evaluating the services provided to Navajo Nation programs.

Additionally, the Navajo Nation programs still call in requests for service, rather than going on-line although the capability is there. Based on our research, the software has custom report writers to measure DIT performance in tracking the services it provides to the Navajo Nation. However, management is not fully utilizing the Web Help Desk software to track performance issues such as: workloads, problem areas, severity issues, and timeliness in responding to requests for service.

Overall, management has yet to use the system to evaluate departmental performance measures. Therefore, the corrective actions were deemed not fully implemented, and the issues identified in the initial audit report remain unresolved.

FINDING IV: The initial audit stated that limited personnel have made DIT services difficult to provide on a 24/7 basis, which was critical for acceptance within the Navajo Nation government. Calls made to DIT to obtain support were not responded to in a timely fashion because the staff was either out on another call or traveling to a conference. DIT often failed to respond to after-hours problems until the next business day. In addition, DIT has only two vehicles available for onsite support visits. This caused significant delays in personnel responding to trouble calls that require an onsite visit.

Corrective Measures:

1. Increase the number of vehicles
2. Hire additional network and server administration staff
3. Hire additional network/PC technicians at each of the 5 agency offices

Follow-up results:

DIT did not hire additional staff nor increase the number of vehicles for the help desk to timely respond to trouble-calls that require an onsite visit. DIT has implemented a "remote hands" service using the *TeamViewer* freeware to assist programs remotely, rather than onsite. Anyone can connect as long as they download the required program and can connect to the internet. However there are some limitations with this method such as user privilege, firewalls, and a required internet connection.

DIT acknowledged that certain trouble calls could not be simply assisted through remote hands. Several scenarios including hardware issues, computer start/power issues and malicious software containment require DIT technicians to do onsite visits to fix the problem. Additionally, DIT could not provide a management report regarding both onsite visits and the usage of remote hands.

The remote hand software is designed as a troubleshooting tool and not an overall fix to remedy timely service and increase IT support. Therefore, the corrective actions were deemed not fully implemented, and the issues identified in the initial audit report remain unresolved.

Conclusion

Overall, the corrective measures within the CAP were not implemented by DIT. Therefore, the deficiencies presented in the initial audit report still exist.

Title 12, Navajo Nation Code (N.N.C.) Section 8 imposes upon DIT the duty to implement the corrective action plan according to the terms of the plan. Since the corrective measures were not implemented, DIT did not demonstrate sufficient improvements over the issues they did have control over to resolve. Title 12 N.N.C. Sections 9(b) and 9(c) directs Office of the Auditor General to recommend sanctions against the Department and Department Director for failure to fully implement the corrective action plan. The sanctions involve withholding 10% of the program's budget and 20% of the Department Director's salary. Accordingly, the Office of the Auditor General recommends sanctions be imposed on the Department and Department Director in accordance with 12 N.N.C. Section 9 (b) and 9(c) for failure to implement the corrective action plan.