



National Archives and Records Administration

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Date : April 29, 2010

Reply to

Attn of : Office of Inspector General (OIG)

Subject : Advisory Report No. 10-11, Inadequate Contingency Planning for the Electronic Records Archives System

To : David S. Ferriero, Archivist of the United States (N)

The purpose of this Advisory Report is to notify you that Electronic Records Archives (ERA) management officials have not adequately planned for a long-term service disruption or outage should the ERA System and its primary site become unavailable. Specifically, our review found: (1) the ERA Business Impact Analysis (BIA) is incomplete and lacks current system information; (2) it is unknown if the ERA System (in its entirety) can be successfully restored from backup tapes; and (3) there is not an alternative backup site. The ERA is a major application system being designed to store and manage the National Archives and Records Administration's (NARA) electronic records and to manage the lifecycle of paper records and other holdings. The ERA System is housed at the Allegany Ballistics Lab in Rocket Center, WV. However, without adequate contingency planning, ERA officials lack assurance the ERA System can be successfully restored at an alternative location should its primary site be unavailable. Such a significant risk severely limits the reliability of the system. In addition, as the system continues to grow in terms of the number of federal agency users and the volume of data ingested; effective contingency planning becomes even more critical.

Information technology (IT) systems are vulnerable to a variety of disruptions, ranging from mild (e.g., short-term power outage, disk drive failure) to severe (e.g., equipment destruction, fire) from a variety of sources such as natural disasters to terrorists actions. Contingency planning refers to interim measures to recover IT services following an emergency or system disruption. Interim measures may include the relocation of IT systems and operations to an alternative site, the recovery of IT functions using alternative equipment, or the performance of IT functions using manual methods.

Business Impact Analysis

According to the National Institute of Standards and Technology Special Publication 800-34 entitled "Contingency Planning Guide for Information Technology Systems", the BIA is a key step in the contingency planning process which helps to identify and prioritize critical IT systems and components. The purpose of the BIA is to correlate specific system components with the critical services that they provide, and based on that information, to characterize the consequences of a disruption to the system components. The BIA is central to determining what recovery strategies should be implemented to ensure availability. Conducting this type of analysis requires input from the users and business process owners as well as other

associated groups. Critical resources for accomplishing the IT system's mission(s) should be identified through data calls with these points of contact. Possible impacts attributed to the unavailability of these resources over time and across associated systems and processes can then be determined, leading to sequencing the recovery of the resources based on potential impacts. Thus, the resource requirements and recovery prioritization will form the basis for developing appropriate contingency solutions.

Our review of the ERA BIA found that it is incomplete and lacks current information. For example, there are no points of contact listed along with their respective roles, no recovery priorities, and no specific resources listed with the respective allowable outage time for each. The BIA was developed in 2008, prior to the Executive Office of the President (EOP) data archive being substantially populated and prior to implementation of the Congressional data archive. As the ERA System is evolving, the recovery priorities may need to be redefined and reprioritized in order to reflect the needs of the current stakeholders. In addition, there are no specific resources listed with the corresponding allowable outage time. Some functions are listed under resources such as Support for Ingest, Search, and Access of Presidential Records. However, no specific resources (e.g. servers) are listed. According to an ERA official, the ERA Program Management Office has designated a team to review the current BIA. He said the team is made up of personnel from multiple disciplines within the ERA Program Office and business representation. Without a complete and current BIA, ERA management lacks an effective component of the contingency planning process.

Backups

Although incremental backups of ERA data are done daily, the ERA System, in its entirety, has not been restored from backup tapes. Without adequate testing, it is unknown if the ERA System can be restored in a timely manner from backup tapes. ERA Program Office officials acknowledged that while limited restoration has been performed in testing and production, the restorability of every component¹ has not been demonstrated. ERA officials are confident the management platform of ERA can be restored successfully and that the ERA Base and Congressional data archives are recoverable. However, of particular concern is the EOP data archive because it is mirrored to an onsite replicated archive. Program officials feel the EOP data can be recovered from the replica, but have serious concerns about the ability to restore the EOP data archive from tape if the replica was not available.

Alternative Backup Site

In 2006, an Interagency Agreement (IAA) was established between NARA and the Commander, Naval Meteorology and Oceanography Command, to lease space in Stennis, Mississippi for an alternative processing site for the ERA System. However, this site was never populated with hardware and software to be used as a backup site. A subsequent OIG report will be issued on this IAA and the lack of an alternative processing site for the ERA System should the primary processing location be unavailable.

¹ The ERA platform can be viewed as a management platform for multiple data archives such as ERA Base, EOP, and Congressional. See Attachment A for a description of these data archives.

To adequately plan for a long-term service disruption, ERA officials need to update the BIA with more complete and current information, and determine if the ERA System (in its entirety) can be successfully restored from tapes at an alternative backup site. We will continue to monitor the contingency planning process for the ERA System and report back to you on a periodic basis.

This project was part of our on-going effort to review NARA's development and implementation of the ERA. Our review effort consisted primarily of reviewing applicable ERA documentation such as the ERA BIA, System Security Plan, Contingency Plan, the IAA with the Commander, Naval Meteorology and Oceanography Command, ERA FY2010 Expenditure Plan; and interviews with responsible ERA Program Office officials. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

If you have any questions concerning the information presented in this report, please e-mail Mr. James Springs or me, or call us at extension 73000.



Paul Brachfeld
Inspector General

cc: NH (M. Morphy)

Descriptions of the ERA Data Archives

ERA Base: The ERA Base provides basic electronic records management capability for NARA legacy data and records and for current transactions of other federal agencies. The Base system enables agencies to create, modify, and delete Records Disposition Schedules, Transfer Requests, and Legal Transfer Instruments. The system also allows agencies to transfer and ingest electronic records.

EOP: Provides for the rapid ingest, search, and retrieval of Executive Office of the President electronic records from the George W. Bush Administration.

Congressional: The system provides for ingest, storage, and retrieval for transfers of Congressional electronic records.