

**INTEGRATED HUMAN RESOURCES
INFORMATION SYSTEM
(IHRIS)
RICHMOND, VIRGINIA**

JULY 18, 2000

***AUDITOR OF
PUBLIC
ACCOUNTS***



COMMONWEALTH OF VIRGINIA

July 18, 2000

The Honorable James S. Gilmore, III
Governor of Virginia

The Honorable Vincent F. Callahan, Jr.
Co-Chairman, House Appropriations Committee

The Honorable John H. Chichester
Chairman, Senate Finance Committee

The Honorable V. Earl Dickinson
Co-Chairman, House Appropriations Committee

Gentlemen:

We have completed an examination of the current human resources and payroll technical environments to include all **Integrated Human Resources Information System (IHRIS)** development efforts to date and an assessment of planned deliverables as required by the 2000 Appropriations Act.

Our examination found that there is no common vision for IHRIS and no sound timeframe for its completion. There is no central reference of what IHRIS encompasses supported by a current project plan that shows the process by which the Department of Human Resource Management (DHRM, formerly the Department of Personnel and Training) intends to achieve this project. A project plan, schedule, and budget serve as the architectural design and blueprint of the project, outlining the critical information for both management and the project team to control and manage the work.

We recommend no future funding for IHRIS. This recommendation's primary consideration is the lack of a central reference for IHRIS. The project plan we received and reviewed does not replace the existing legacy systems, does not include the integration of payroll, does not provide a private and controlled environment over the Internet, and does not implement Compensation Reform.

We recommend before funding any future human resource systems that DHRM develops a central reference of what the system will encompass and what actions and considerations must occur to integrate or exchange information with the State Comptroller's payroll systems. This central reference should clearly describe the scope and objectives of the human resource system. After completion of the plan, the Secretary of Information Technology should approve the formal project plan that describes all necessary tasks along with sound completion dates and budget estimates. Further, if this system will integrate or exchange information with the State Comptroller, then the Secretary of Finance should also review and approve the plans.

We discussed this report with the Chair of the Steering Committee from the Department of Human Resource Management on July 18, 2000.

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AUDITOR OF PUBLIC ACCOUNTS

REVIEWING THE PROJECT

Introduction

The Auditor of Public Accounts and the Joint Legislative Audit and Review Commission worked together to perform this examination of IHRIS. We reviewed the project plan, schedule, and budget to determine whether the documentation was complete and reasonable. The project plan, schedule, and budget serve as the architectural design and blueprint of the project, outlining the critical information for both management and the project team to control and manage the work. We also met with the Steering Committee to obtain updates on the status of the project.

The formal project plan, schedule, and budget we received had a January 2000 date. On February 1, the IHRIS Steering Committee presented a revised project schedule and budget to the Senate Finance subcommittee that we also considered during this review. Additionally, the DHRM Director described more planned changes to IHRIS resulting from recent Compensation Reform initiatives. We found the project plan and schedule did not include either the Steering Committee's revisions nor Compensation Reform initiatives. Failure to build a central reference and project plan has created confusion about what the IHRIS project involves or encompasses.

We found that the Steering Committee members have different opinions about the scope of IHRIS. One member expressed that IHRIS involves the hardware and software (referred to as infrastructure) necessary to build a web-enabled platform. Other members described IHRIS as infrastructure development, data entry to existing personnel systems over the Internet, and the creation of new personnel features such as training administration and health benefits.

We also found discrepancies in the timeframe for IHRIS completion. According to the current project plan, only a portion of IHRIS will reach completion by the legislative funding end date of June 30, 2001. The February 1 Steering Committee presentation shows nearly all of IHRIS developed before June 30, 2001.

In summary, there is no central reference that details the current plans for IHRIS. A formal, detailed project plan did not exist until January 2000, is already out-of-date, and does not consider the project direction changes.

Scope

The scope of our examination addressed the five objectives set out in the 2000 Appropriations Act and listed below.

1. Current and planned development provide for the cost effective integrated relationship with the state's central payroll and leave system;
2. Current and planned development successfully provide for a modernized personnel data system;
3. Current and planned development allow agencies to access and query personnel data with increased privacy and control;
4. Current and planned development effectively support the implementation of the recommendations of the Commission on the Reform of the Classified Compensation Plan, and;
5. Future funding should be made available for the development of IHRIS.

Objective 1 - Current and planned development provide for the cost effective integrated relationship with the state's central payroll and leave system

There is no current development to provide an integrated relationship with the state's central payroll and leave system. We cannot assess the cost effectiveness of integration because the project plan does not include payroll and leave activities and to date, there is no decision regarding how and what the integration will include.

We met with the State Comptroller who is also a member of the IHRIS Steering Committee. The original IHRIS direction envisioned the replacement of the existing payroll system with an integrated personnel and payroll system. The Steering Committee ceased the original PeopleSoft initiative in February 1999 and chose a new project direction. The Comptroller, who is responsible for the payroll system, has chosen to wait and evaluate the completed IHRIS system before deciding whether to proceed with integrating the current payroll and leave system. We concur with his decision.

Objective 2 - Current and planned development successfully provide for a modernized personnel data system

The current development has the potential to improve data entry but will not modernize the existing legacy personnel systems (BES and PMIS). New input screens will allow users to enter personnel data over the Internet while middleware will transfer the information into the existing legacy systems. Traditionally most executive branch agencies enter personnel information directly into the DHRM's legacy systems using their access to the Department of Information Technology's data center. Simply put, IHRIS will change the means by which personnel data entry occurs; however, the basic function will not change.

If DHRM determines the need for additional personnel data beyond the capabilities of the legacy systems, the intention is that a new Oracle database will capture this information. DHRM further envisions the eventual replacement of the legacy systems with modernized systems although the formal project plan does not address either the timing or method for replacement.

Objective 3 - Current and planned development allow agencies to access and query personnel data with increased privacy and control

DHRM has designed a conceptual environment whereby agencies can query personnel data themselves rather than request a report from DHRM; however, this feature is not yet functional. DHRM planned to place this feature in production by March 2000, but efforts ceased with the freezing of IHRIS funding.

DHRM has not performed a formal analysis of the risks associated with allowing agencies this access and, therefore, has not developed policies or procedures related to how security, privacy, or control will function. Using the Internet to conduct business has inherent risks and security issues that any agency must assess and minimize. Examples of these issues include encryption, non-repudiation, authentication, integrity, and hardware and software configuration. Until the Project Manager identifies and addresses security and privacy issues and implements appropriate controls, we do not believe DHRM will have adequate security to safeguard state employees' personnel data under IHRIS.

Virginia is currently taking many initiatives to research and understand the risks and issues involved with the use of the Internet and electronic commerce. The Council on Technology Services (COTS) formed a Digital Signature Initiative sub-committee to create a foundation of policies, practices, guidelines, and standards for the use of digital signatures.

Objective 4 - Current and planned development effectively support the implementation of the recommendations of the Commission on the Reform of the Classified Compensation Plan

The IHRIS project plan does not include Compensation Reform, however DHRM is making changes to accommodate Compensation Reform directly to the PMIS system. The Director of DHRM described that IHRIS will consider Compensation Reform initiatives; however, these plans are not formalized at this time.

The Commission on the Reform of the Classified Compensation Plan outlined eleven recommendations and presented them to the Governor and General Assembly in a final report dated January 14, 2000. Recommendations included establishing a new pay structure, merging position classifications into broader groupings, supporting career growth, and establishing new factors to determine relative worth. None of planning documentation for IHRIS included any projects to address or support these recommendations.

Objective 5 – Should future funding be made available for the development of IHRIS

At this time, we recommend no future funding for IHRIS. In summary, there is no formal documentation that details the current plans for IHRIS. The project plan does not replace the existing legacy systems, does not include the integration of payroll, does not provide a private and controlled environment over the Internet, and does not implement Compensation Reform.

We believe that there exists the need to improve and enhance the DHRM's human resource systems. However, before funding any future systems, DHRM should develop a central reference of what the system will encompass, how the system will operate, what development methodology will be used, and the detailed project plan to implement the system. Additionally, DHRM should include what actions and considerations the system should have to integrate or exchange information with the State Comptroller's payroll systems.

After completion of the central reference, the Secretary of Information Technology should approve the formal project plan that describes all necessary tasks along with sound completion dates and budget estimates. Further, if this system will integrate or exchange information with the State Comptroller, then the Secretary of Finance should also review and approve the plans.

The approach recommended above moves the primary thrust of future projects to DHRM and as such we would suggest eliminating the Steering Committee. We recommend for future developments that DHRM establish work groups of users and other experts to help in the human resource system development on an as needed basis.

Finally, there remains less than \$1.6 million of the original \$13.2 million in funding unspent. According to the 1995 Appropriations Act, the funding for IHRIS will end on June 30, 2001. With no continued funding, DHRM's operating budget must pay monthly equipment lease obligations incurred for IHRIS. The Steering Committee authorized the Project Manager to lease rather than purchase equipment to support IHRIS. Currently DHRM has leased over \$500,000 in equipment with an obligation of \$10,330 per month over at least the next 4 years. Additionally, hardware and software maintenance expenses associated with IHRIS total more than \$400,000 annually. DHRM will need to determine how it will fund this obligation.

History

The Commonwealth of Virginia has more than 100,000 permanent and temporary employees in over 200 state agencies. Three different computer systems support the Commonwealth personnel and payrolls. These systems are the Personnel Management and Information System (PMIS), Benefits Eligibility System (BES), and Commonwealth Integrated Payroll and Personnel System (CIPPS). To consolidate systems and use technology, the *1995 Appropriations Act* provided funding to replace the current payroll and personnel system with an integrated human resource system, IHRIS.

The *1995 Appropriations Act* provided that funding for the system would come from a Treasury loan from the General Account's Non-general Fund cash balances expected to total \$13.2 million. Agencies would repay the loans over 10 years from a mixture of General and Non-general Funds.

The Department of Human Resource Management and the Department of Accounts were the lead agencies responsible for developing and implementing IHRIS. Human Resource Management had the project management responsibility while Accounts had the disbursement and accounting responsibility. In addition, the Virginia Community College System, the Departments of Transportation, Health, and Account's Payroll Service Bureau were to participate as the initial sites for implementing IHRIS, scheduled for third quarter, 1998.

The original Request for Proposal (RFP) included as one contract: software development, implementation, and training services. The Commonwealth received one bid for this RFP which far exceeded the available funds and anticipated cost for this project. Therefore, the lead agencies re-wrote the RFP, separating the software procurement from the desired technical services. Further, the lead agencies decided to take on some of the roles originally intended for the vendor and decrease some of the required services.

Project management comes from a Steering Committee, which has the responsibility to monitor the project's status, address major issues and policies, provide strategic direction, and resolve conflicts for resources and priorities. Committee members include agency heads from the Department of Human Resource Management (Chair), Department of Accounts, Department of Information Technology, and the Department of Technology Planning.

The IHRIS Steering Committee selected PeopleSoft as the contractor to provide the software, installation, and training services, excluding end-user training. The Hunter Group received the contract for facilitating the changes to the PeopleSoft software and to provide technical expertise and knowledge to the project. The Hunter Group also provided the lead agencies with training and technical support.

Work on IHRIS began in 1996 and as of November 1998, the project deployment schedule had slipped. In June 1998, the project team planned to begin parallel tests of the Human Resources module during the first quarter of 1999 in the DOA Payroll Service Bureau. By November 1998, this date had slipped to the third quarter of 1999. In December 1998, the project team finished installing the customized PeopleSoft Human Resources and Payroll modules and had versions available for testing. At this point, total project costs were \$9 million to purchase hardware, pay consultants, purchase the PeopleSoft Human Resources and Payroll software, and train staff on the system.

Fundamental to this project from the beginning was how the system would communicate with over 200 agencies, each having different network environments and using a variety of communication methods. Since first purchasing the PeopleSoft software, the project team raised questions about the technical infrastructure. The IHRIS project hired a consultant who made a technical infrastructure recommendation in November 1998, however some members of the project team rejected their recommendation as unfeasible.

In early January 1999, several changes affected the IHRIS project. The Steering Committee hired a new Project Manager and ended The Hunter Group's involvement in the management of IHRIS. The Department of Accounts was no longer a lead agency responsible for the project development and implementation. Instead the Department of Human Resource Management functioned as the sole lead agency.

At a February 1999 meeting, the Steering Committee decided that they could not resolve the communication issues with PeopleSoft and approved that the Project Manager undertake a new project direction. The plan called for integrating PMIS and current benefits system (BES) and other independent human resource systems using Message Oriented Middle (MOM) software. This software makes use of Web technology. The plan calls for keeping the existing PMIS and BES systems and programming additional functionality in Oracle and Java, and storing the data on a UNIX server originally purchased for PeopleSoft.

