



National  
Defence

Défense  
nationale

Chief Review Services Chef - Service d'examen

CRS  CS Ex

# Audit of Human Resource Management System (HRMS) Capabilities and Functionalities

September 2012

7050-57 (CRS)



Canada 

## Table of Contents

<b>Acronyms and Abbreviations .....</b>	<b>i</b>
<b>Results in Brief.....</b>	<b>iii</b>
<b>Introduction .....</b>	<b>1</b>
Background .....	1
Objectives .....	3
Scope .....	4
Methodology.....	4
Statement of Conformance .....	5
<b>Findings and Recommendations.....</b>	<b>6</b>
DIRHS Project Management and Delivery of HRMS Capabilities .....	6
HRMS Governance .....	11
HRMS Training and Communication .....	13
Usage of HRMS Capabilities .....	15
<b>General Conclusion .....</b>	<b>17</b>
<b>Annex A—Management Action Plan .....</b>	<b>A-1</b>
<b>Annex B—Audit Criteria .....</b>	<b>B-1</b>



## Acronyms and Abbreviations

ADM(Fin CS)	Assistant Deputy Minister (Finance and Corporate Services)
ADM(HR-Civ)	Assistant Deputy Minister (Human Resources – Civilian)
ADM(IM)	Assistant Deputy Minister (Information Management)
BI	Business Intelligence
BPO	Business Process Owner
COBIT	Control Objectives for Information and Related Technology
COTS	Commercial Off-the-Shelf
CRS	Chief Review Services
DG	Director General
DGEAS	Director General Enterprise Application Services
DGHRSD	Director General Human Resources Strategic Directions
DGIMPD	Director General Information Management Project Delivery
DHRIM	Director Human Resources Information Management
DIHRS	Defence Integrated Human Resource System
DND	Department of National Defence
DOORS	Dynamic Objective Oriented Requirements System
ERP	Enterprise Resource Planning
GC	Government of Canada
HR	Human Resources
HRMS	Human Resource Management System
IM/IT	Information Management/Information Technology
INTOSAI	International Organization of Supreme Audit Institutions
IT	Information Technology
L1	Level One
OPI	Office of Primary Interest
PL	Project Leader
PAD	Project Approval Directive
PAG	Project Approval Guide
PDM	Project Delivery Manual
PM	Project Manager
PMBOK	Project Management Body of Knowledge

SLA	Service-Level Agreement
SOR	Statement of Requirement
SRB	Senior Review Board
SSI	Shared System Initiative
TBS	Treasury Board Secretariat
UPK	User Productivity Kit
VCDS	Vice Chief of the Defence Staff



## Results in Brief

The Human Resources Management System (HRMS) was delivered through the Defence Integrated Human Resource System (DIHRS) Information Technology (IT) capital project. The project was active from November 1996 to September 2010, including three main phases with each phase delivering a different version of HRMS. The main objective of the DIHRS project was to replace the various legacy human resources (HR) systems that existed at the time and deliver a single HR information management system. The overall project budget was \$99.7 million.<sup>1</sup> The audit focused on the third and final phase which delivered HRMS version 8.9 at an approved budget of \$37.8 million.

The objective of this audit was to assess whether the process and controls were sufficient to ensure DIHRS project objectives and HRMS system capabilities were achieved in a cost-effective manner.

The audit also reviewed the delivered capabilities and the use made of these capabilities, in comparison to the original requirements.

The audit has found that the processes and controls in place were found to be insufficient and thus could not ensure the delivery of DIHRS project objectives and HRMS capabilities in a cost-effective manner. As a result, not all intended capabilities of HRMS 8.9 have been fully delivered.

### Main Findings and Recommendations

**DIHRS Project Management and Delivery of HRMS Capabilities.** Insufficient project oversight, significant scope changes and unsuccessful integration between business requirements and necessary system capabilities during the DIHRS project led to planned HRMS capabilities not being fully delivered.

### Overall Assessment

The processes and controls were not always sufficient to ensure DIHRS project objectives were met and HRMS capabilities were delivered in a cost-effective manner. The intended capabilities of HRMS 8.9 have not been fully delivered to date. Improved training as well as clearly defined roles and responsibilities will contribute to better utilization of the HRMS capabilities that were delivered.

Efforts by the business process owners (BPO) in various HR business areas were evident to improve training and awareness in the HRMS 8.9 user groups. As well, the compensation business process is well integrated with the HRMS 8.9 Pay Interface module. In addition to the delivered capabilities meeting the business needs, a workflow is also built in the system to mirror actual compensation processes.

<sup>1</sup> Departmental funding, DIHRS Senior Review Board (SRB) presentation, 23 October 2009.

Department of National Defence (DND) IT projects could be more easily managed and measured for success if more prescriptive guidance was in place on project scope changes requiring approvals, linking approved requirements to proposed deliverables and the sharing of lessons learned from completed projects.

It is recommended that the Assistant Deputy Minister (Human Resources – Civilian) (ADM(HR-Civ)) finalize the HR business modernization program business case and ensure timely input and agreement from all stakeholders in order to identify all business deficiencies that have not been satisfied by the current system to date and document, in detail, the business impact and interdependencies between the current business processes, stakeholders and proposed system solution.

It is recommended that the Vice Chief of the Defence Staff (VCDS) ensure that the Project Approval Directive (PAD) clearly identifies the criteria on scope change based on when a project should re-seek the appropriate project approval.

It is recommended that the Assistant Deputy Minister (Information Management) (ADM(IM)) strengthen guidance for IT projects on the process of establishing traceability from business requirements to system capabilities and ensure systematic group sharing of lessons learned from completed projects.

**HRMS Governance.** Roles and responsibilities of key stakeholders in developing, using and managing HRMS do not clearly identify accountability for all organizations involved, impeding the efficiency and effectiveness of HRMS.

It is recommended that ADM(HR-Civ) develop Service-Level Agreements (SLA) to clearly identify the roles and responsibilities of HR service centres, business process owners and the Information Management/Information Technology (IM/IT) Modernization organization.

It is recommended that ADM(IM), in conjunction with ADM(HR-Civ), formalize the governance structure for the oversight of HRMS capability decisions.

**HRMS Training and Communication.** Efforts by the BPOs in various HR business areas were evident to improve training and awareness in the HRMS 8.9 user groups. However, delivered HRMS capabilities have not been used to their full potential due to insufficient training and communication between users and various stakeholders in the HRMS 8.9 business community.

It is recommended that ADM(HR-Civ) implement a training strategy that aligns with HR objectives for all areas of HRMS users and strengthen communication between users and various stakeholders in relation to the management and in-service support of HRMS 8.9.

**Usage of HRMS Capabilities.** The business processes of compensation in the management of the civilian pay transactions have been well integrated with HRMS 8.9 pay interface module. However, in other areas, insufficient configuration of HRMS capabilities and redesign of existing business processes have resulted in the use of parallel applications and under-utilization of HRMS 8.9.

It is recommended that ADM(HR-Civ) analyze, integrate and leverage current HRMS capabilities to realize further efficiency gains from the system.

**General Conclusion.** The processes and controls were not always sufficient to ensure DIHRS project objectives and HRMS capabilities were delivered in a cost-effective manner. The intended capabilities of HRMS 8.9 have not been fully configured and delivered to date. Improved training as well as clearly defined roles and responsibilities will contribute to better utilization of the delivered HRMS capabilities. The issues identified in this audit should be addressed in order to ensure that the capabilities of current and future HRMS versions are fully leveraged in its support of the achievement of HR objectives in DND. The upcoming implementation of HRMS 9.1 should benefit from the key lessons learned that have been identified, particularly in the areas of better integrating the business requirements with the new technology and measuring the system output against the original business requirements. The audit recommendations should contribute to further improve the control, governance and risk management practices in the development, usage and in-service support of HRMS.

---

**Note:** Please refer to [Annex A](#)—Management Action Plan for the management response to the Chief Review Services (CRS) recommendations.

---

## Introduction

### Background

The CRS 2011/12 Risk-Based Audit Plan identified the need for an IT systems audit to assess the management of the delivery of the system as well as the benefits that were delivered post-system implementation. The HRMS was identified as warranting an audit amongst a large number of current IT systems that were considered for a potential audit using original investment cost, complexity, relevance, importance and impact to the Department.

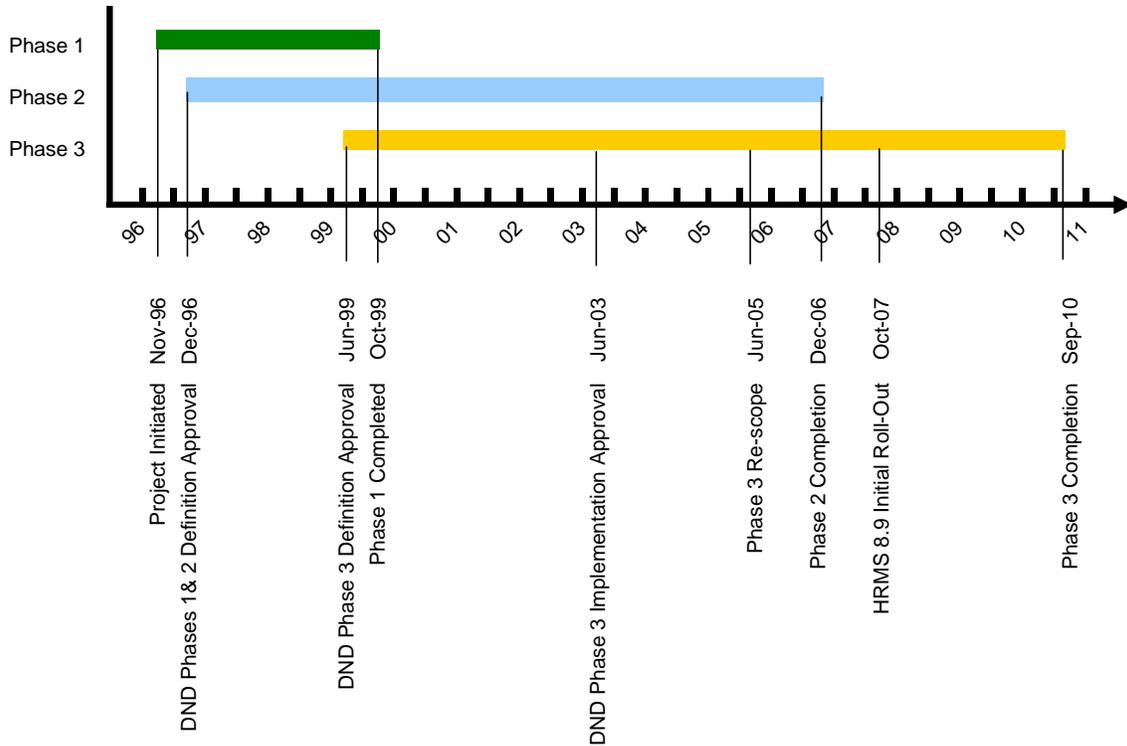
As the HR system of record, the HRMS was delivered through the DIHRS IT capital project which was initiated in November 1996 and concluded in September 2010. The overall objective of the DIHRS project was to replace various legacy HR systems by delivering a single HRMS that could be used by all civilian and military personnel to readily access HR information. Having a single HRMS was also in accordance with the Government of Canada (GC) Shared System Initiative (SSI).<sup>2</sup> Currently, a GC cluster group exists, consisting of more than 23 departments and agencies that use the same version of the HR system. Implementing HRMS 8.9, the version supported by the GC cluster group, enables DND to take advantage of the version support of the GC cluster group.

The main milestones<sup>3</sup> of the project are illustrated in Figure 1. Through the course of 14 years, the project has undertaken three phases. The overall project budget was \$99.7 million. This audit mainly focused on the third and final phase which delivered HRMS 8.9 at an approved budget of \$37.8 million.

---

<sup>2</sup> The SSI was established to reduce the number of departmental financial, personnel and material systems in use across the government and to achieve significant cost savings by using common processes.

<sup>3</sup> Based on departmental approval dates.



**Figure 1. DIHRS Project Timeline.** This diagram shows the complete project timeline including all three phases of the project. The data is summarized in Table 1.

Phase 1	Phase 2	Phase 3
Project Initiated – November 1996	DND Phases 1 and 2 Definition Approval – December 1996	DND Phase 3 Definition Approval – June 1999
DND Phases 1 and 2 Definition Approval – December 1996	Phase 1 Completed – October 1999	Phase 1 Completed – October 1999
Phase 1 Completed – October 1999	DND Phase 3 Definition Approval – June 1999	DND Phase 3 Implementation Approval – June 2003
DND Phase 3 Definition Approval – June 1999	DND Phase 3 Implementation Approval – June 2003	Phase 3 Re-scope – June 2005
	Phase 3 Re-scope – June 2005	Phase 2 Completion – December 2006
	Phase 2 Completion – December 2006	HRMS 8.9 Initial Roll-Out – October 2007
		Phase 3 Completion – September 2010

**Table 1. Details for the DIHRS Project Timeline.**

- **Phase 1.** With an approved budget of \$25 million, HRMS 5.2 replaced several DND legacy systems<sup>4</sup> for both military and civilian employees.
- **Phase 2.** At an approved budget of \$36.2 million, the system was upgraded from HRMS 5.2 to HRMS 7.5 for both military and civilian employees.
- **Phase 3.** Initial scope was intended for a straight technical upgrade<sup>5</sup> from HRMS 7.5 to HRMS 8.8, for both the military and civilian employees at a budget of \$38.5 million. However, due to a subsequent scope change in June 2005, HRMS 8.9 was ultimately implemented with minimal customization. HRMS 8.9 was implemented for only the civilian employees, as the military remained with HRMS 7.5 and was still using this version of the system at the time of this audit.

The HRMS 8.9 business community within ADM(HR-Civ) consists of many stakeholders, including the following:

- The service centers, which consist of the most frequent HRMS 8.9 users who enter information on a daily basis. There are seven directors overseeing the operations, including the regional service centers.
- The HRMS 8.9 BPOs,<sup>6</sup> who are the owners of a particular HR business process. Even though responsibilities vary between different BPOs, examples of current responsibilities of the BPOs include providing guidance on HRMS processes to the users and acting as liaison between the users and the IM/IT Modernization organization. No direct reporting relationships exist between the service centers and the BPOs, but the BPOs have significant influence on how the service centers use HRMS 8.9. Currently, there are a total of 10 BPOs, nine of which are in ADM(HR-Civ).
- The IM/IT Modernization organization, which is the liaison between the BPOs and ADM(IM)—the in-service support organization—is intended to act as a single voice representing the interests of ADM(HR-Civ) as a whole with respect to HRMS 8.9.

In addition to ADM(HR-Civ), all organizations within DND include HRMS 8.9 users such as leave self-service, training coordinators, as well as honours and awards coordinators.

## Objectives

The objective of this audit is to assess whether the process and controls were sufficient to ensure DIHRS project objectives and HRMS system capabilities were achieved in a cost-effective manner.

---

<sup>4</sup> The Military Personnel Information System, Establishment Management Information System and Civilian Personnel Management Information System.

<sup>5</sup> Technical upgrade means that all the highly customized functions in the previous version 7.5 would have to be re-applied to the new version 8.x.

<sup>6</sup> There are currently 10 HRMS BPOs, including Workers' Compensation Board claims, pay, leave management, recruiting, classification and position management, labour relations, learning, honours and awards, employee equity, and official languages.

For a detailed list of criteria associated with the audit objective and the source of the criteria, please refer to [Annex B](#)—Audit Criteria.

## **Scope**

The audit scope included the following:

- An assessment of project management practices, including control and governance for Phase 3 of the DIHRS project, from April 2004 to September 2010.
- An assessment of activities post-system implementation from September 2010 to the completion of the audit field work in April 2012, including the availability of training and support, communication methods and level of use in regards to HRMS 8.9.

However, the audit scope did not include the following:

- Functions and capabilities of HRMS 7.5, the current HR system for the military personnel.
- Independent technical assessment of the delivered system functions. The assessment related to identifying the gap between planned business requirements in the DIHRS Statement of Requirement (SOR) and the delivered system functions was based on the survey results from both the users of the system, the BPOs, and the implementer of the system, Director Human Resources Information Management (DHRIM).

## **Methodology**

- Reviewed relevant GC and DND policies, directives and initiatives relevant to IT and project management.
- Reviewed DIHRS project documents, including approval documents, cost validation report and project briefings to oversight committees.
- Identified and reviewed current HRMS 8.9 training manuals, process flow charts and UPK.
- Interviewed staff from former DIHRS project management office, VCDS, ADM(HR-Civ), ADM(IM), Assistant Deputy Minister (Materiel) and Assistant Deputy Minister (Finance and Corporate Services) (ADM(Fin CS)) who were involved in the management and oversight of the DIHRS project.
- Interviewed organizations that are currently using, managing and developing HRMS 8.9 in order to understand the working relationships, processes, roles and responsibilities.
- Surveyed the BPOs and DHRIM to determine if business requirements identified in the DIHRS SOR were fully satisfied by the delivered system capabilities.
- Surveyed the BPOs and a sample of the users from the ADM(HR-Civ) National Capital Region Service Center, Learning Center, and several other Level One (L1) organizations, to identify the degree of use and training in relation to HRMS 8.9.



## Statement of Conformance

The audit findings and conclusions contained in this report are based on sufficient and appropriate audit evidence gathered in accordance with procedures that meet the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing*. The audit thus conforms with the Internal Auditing Standards for the Government of Canada, as supported by the results of the quality assurance and improvement program. The opinions expressed in this report are based on conditions as they existed at the time of the audit, and apply only to the entity examined.



## Findings and Recommendations

### DIRHS Project Management and Delivery of HRMS Capabilities

Intended HRMS capabilities were not fully delivered because of insufficient project oversight, significant scope changes and unsuccessful integration between business requirements and necessary system capabilities during the implementation of the DIHRS project.

#### DIHRS Project Management

**Project Oversight and Scope Change.** Contrary to DND's Project Approval Guide (PAG),<sup>7</sup> significant changes in scope during Phase 3 of the DIHRS project were not resubmitted to the original project approval authority. The authority was made aware of the scope changes in January 2008, 31 months after the decision on scope changes was made.

The DIHRS project management office initially began the implementation of Phase 3 of the DIHRS project with a budget of \$37.8 million.<sup>8</sup> The original scope of delivering a straight technical upgrade to HRMS 8.8, however, was changed significantly based on the following VCDS direction in June 2005:<sup>9</sup>

- Upgrade only the civilian HR system to HRMS 8.9<sup>10</sup> with less than 10-percent customization from the COTS version, instead of the highly customized HRMS 8.8, in order to take advantage of future support from the GC cluster group which should reduce departmental support costs in the long run.<sup>11</sup>
- The military HR system was left at HRMS 7.5. The military was not ready to redesign the HR business processes to adapt to the minimally customized HRMS 8.9 in 2005 as resources were committed to other operational priorities.<sup>12</sup>

During the time elapsed from the initial project approval in 2004 to the change in scope in June 2005, the DIHRS project had already spent \$7.7 million on acquiring the hardware and software, as well as technical tuning for the upgrade to HRMS 8.8. Even though the hardware and software for HRMS 8.8 was later used for HRMS 8.9, the project management resources used on the upgrade to HRMS 8.8 did not provide the intended value as HRMS 8.8 was not ultimately implemented. Additionally, since

<sup>7</sup> PAG, Section 2.2.22.

<sup>8</sup> Departmental cost net of the goods and services tax,

<sup>9</sup> Record of decision from the enterprise resource planning HR way ahead meeting, 28 June 2005. A special meeting held in June 2005 chaired by VCDS with participation from various L1s recorded the direction and decision on changing the scope.

<sup>10</sup> HRMS 8.9 was the commercial off-the-shelf software from Oracle which was chosen by the TBS GC HR cluster group as the GC-supported HR solution across all departments. In order to transition from a highly customized HR system to a Commercial off-the-Shelf (COTS) system without customization, substantial business processes redesign is needed.

<sup>11</sup> DIHRS Project Completion Report, 4 September 2010.

<sup>12</sup> Ibid. The audit did not examine the adequacy of the decision of not upgrading the military system to HRMS 8.9, as it is outside of the audit scope.

June 2005, approximately six months of project personnel time amounting to \$1.9 million was spent on defining a solution to integrate military and civilian data on two separate systems. The activities resulting from the change in scope has left \$28.2 million for the delivery of HRMS 8.9 for civilian employees only. After June 2005, a decision was made to include self-service and pay interface modules, as well as enhancing the system to a Protected B structure.

Upon the revision of scope in June 2005, independent cost validation on the new budget did not take place, and SRB meetings did not convene as frequently as required by the PAG. The project did not follow the normal process to report the revised scope to the original project approval authority. ADM(Fin CS) is only required to perform a cost validation<sup>13</sup> when a scope change is resubmitted to the original project approval authority. Though DIHRS reported its budget plan for the \$28.2 million against 20 activities to the SRB in 2007, no subsequent documented reporting occurred to show how the actual expenditures were incurred against the planned activities. Only three SRBs, in June 2007, October 2009, and June 2010, were held during the six years encompassing Phase 3 of the project.

**Integration between Business and System.** Traceability from HR business requirements to system deliverables was not clearly demonstrated during the early planning before implementing HRMS 8.9. As IT projects are driven by business requirements,<sup>14</sup> it is important to clearly identify the business requirements and their relationship to the system capabilities.

The BPOs together with the DIHRS project management team identified a list of business requirements which were subsequently documented as 271 business functions in the DIHRS project SOR. As the HRMS 8.9 was to be less than 10-percent customized, not all of the identified business requirements could be satisfied by the system, thus requiring a redesign of the business processes to adapt to the new system. However, the integration sessions to determine how the business processes could be redesigned and the business impact of doing so did not occur. Even though the DIHRS SOR of 2007 attempted to demonstrate which system function could satisfy the business requirements, the functionalities provided in the SOR were not detailed enough, as it did not drill down to the specific sub-function within these modules.

Because the mapping from business requirements to system functions was not detailed enough, there was no baseline against which the project could assess how well the system implementation deliverables would satisfy business requirements. As well, there was no way of determining whether the project met business needs during its development. Apart from an informal assessment conducted by ADM(HR-Civ), there was no project performance report at project close-out to identify the portion of the 271 business requirements that were not satisfied by the system.

<sup>13</sup> Cost validation provides an independent assessment on the reasonableness of the budget of a project.

<sup>14</sup> PAD, Chapter 7, B.7.3.24.

## HRMS 8.9 Capabilities not Fully Delivered

Since the re-scope in June 2005, the DIHRS project redefined the existing plans to lead to the implementation of HRMS 8.9 within the remaining budget of \$28.2 million. However, not all the redefined deliverables for HRMS 8.9 were successfully implemented by the project close-out in September 2010 within the given budget.

- The first two years of in-support service, budgeted at a total of \$0.5 million as of 2007, were not paid by DIHRS as intended due to insufficient funds.
- HRMS 8.9 did not include all the capabilities intended. Based on a survey conducted by the audit team of BPOs and DHRIM, 61 percent of the 271 business functions,<sup>15</sup> known as business requirements, in the DIHRS SOR were delivered by the system. As the business requirements were not ranked based on priority in the original project document, this assessment has given equal weighting to all 271 business requirements. Some key capabilities not delivered include an organizational charting tool that would allow organizational charts to be generated based on data within HRMS 8.9, and the Business Intelligence (BI) reporting tool which would allow users to define criteria and generate reports from HRMS 8.9. As the basic reporting capability within HRMS 8.9 is very limited and does not allow users to specify criteria for customized reports, the absence of the BI reporting tool limits the ability to assess the performance of the organization and report to management.

At the time of the audit, the business deficiencies noted since 2010 at DIHRS project close-out still remained. As a recent effort, ADM(HR-Civ) created an “HR Business Modernization Program Business Case.”<sup>16</sup> This document identifies at a high level what the current business deficiencies are and how new technologies and/or people processes can address them. Although the contents were briefed to higher-level stakeholders within ADM(HR-Civ), working-level input from BPOs, the IT in-service support organization, and users had not been obtained at the time of this audit. No action plans with specific target dates were outlined in the business case because it is a strategic document.

## IT Project Management

**PAD Guidance on Scope Changes.** The PAD<sup>17</sup> does not clearly identify the criteria based on which a project is required to re-seek project approval upon changing its original scope. The PAD states that a project is required to re-seek project approval if there is a change from the original performance baseline in terms of cost, schedule and scope. Even though a quantified threshold was given for cost and schedule change, i.e., greater than 10-percent increase in cost and greater than a year of slippage, the threshold

---

<sup>15</sup> The DIHRS SOR dated 2007 does not capture 100 percent of the HR requirements needed for the operations in DND, as the document was intended to capture the business requirements that were already implemented in HRMS 7.5.

<sup>16</sup> The version available for review by the audit team was draft version 9.3, dated May 2012.

<sup>17</sup> At the time of implementation of DIHRS, the management of the project was mainly guided by the PAG and “The Project Delivery Management.” The PAG has been revised and is now known as the PAD since 15 September 2011.

for scope change was vague.<sup>18</sup> Without detailed criteria, there can be different interpretations by different project management staff, which could lead to scope change occurring without proper oversight or approval.

Clear distinction has not been made between the original project approval authority and the project leader (PL) to avoid confusion over who has the authority to approve changes to the original project performance baseline. The PAD states that the PL can approve changes to the project performance baseline.<sup>19</sup>

**ADM(IM) Guidance on IT Project Requirements.** The PAD refers to the Project Delivery Manual (PDM), an internal ADM(IM) document, for more specific guidance on IT projects, recognizing the difference between an IT-enabled project and an equipment acquisition project. However, the PDM does not contain guidance on how an IT project could better link business requirements to technical requirements and deliverables, thus allowing performance measurement of the IT investment against original business requirements. Currently, the DND IT project management community mainly relies on the project manager (PM) or team member experiences, allowing practices to vary between projects. A system known as the Dynamic Object Oriented Requirement System (DOORS) is used at times to sustain the traceability of requirements through different phases of the project, but that has not been mandated nor well supported for proactive use. Establishing clear traceability between business and system requirements provides the framework for an IT project to measure the success of the system implementation. Better guidance on requirements traceability would help ensure consistent practices within the Department.

**Sharing of Lessons Learned within IT Project Management Community.** Lessons learned from completed projects were not reviewed and analyzed at the corporate level and shared with the IT project management community on a regular basis. Good practices identified in lessons learned can contribute to policy and process changes that will benefit the community. Even though issues, progress and performance of active projects within each project portfolio director in ADM(IM) are discussed at monthly meetings,<sup>20</sup> lessons learned from past projects are not shared. Current practice has been to rely on project personnel to consult the Capability Investment Database, where the lessons learned should be captured. A periodic group session with ADM(IM) PMs called “info swap” exists and can be incorporated to share lessons learned on a more regular basis. During the last two years, two such sessions have been conducted, one in May 2010 and the other in March 2012, but the topics were not related to the sharing of lessons learned. Centrally organized lessons learned sessions gearing towards the whole IT project management community would ensure that personnel of active projects are learning from completed projects and that lessons learned in the past are not lost over time due to personnel turnover.

---

<sup>18</sup> PAD, Chapter 16, C.16.1.3.

<sup>19</sup> PAD, Chapter 11, B.11.2.6.

<sup>20</sup> The monthly meetings to discuss ongoing issues and share lessons learned in active projects include status report updates, project dashboard, delivery management meetings and portfolio management meetings.

Significant changes in project scope, insufficient oversight, as well as unsuccessful business and system integration have ultimately led to the HRMS 8.9 capabilities falling short of business requirements. Even though the DIHRS project was completed in 2010, the lessons learned from the project should be shared and incorporated into active IT projects. The business deficiencies that existed at the time of the DIHRS project completion in 2010 still exist to date. Due to the absence of some key capabilities such as the reporting BI tool which allows the users to assess and report their performance to senior management, the implementation of HRMS 8.9 is a step forward but is not effectively supporting the achievement of HR objectives.

### Recommendations

1. ADM(HR-Civ) should finalize the HR business modernization program business case to ensure that timely input and agreement from all stakeholders has been sought in order to

- identify all business deficiencies that have not been satisfied by the current system to date; and
- document, in detail, the business impact and interdependencies between the current business processes, stakeholders and proposed system solutions.

**OPI:** ADM(HR-Civ)

2. VCDS should ensure that the PAD clearly identifies the criteria on scope change based on when a project should re-seek the appropriate project approval.

**OPI:** VCDS

3. ADM(IM) should strengthen guidance for IT projects on the process of establishing traceability from business requirements to system capabilities and ensure systematic group sharing and documentation of lessons learned from completed projects.

**OPI:** ADM(IM)/DGIMPD

## HRMS Governance

Roles and responsibilities in using, developing and managing HRMS can be better defined to clearly reflect accountability for all organizations involved to improve the efficiency and effectiveness of HRMS.

**ADM(HR-Civ) Roles and Responsibilities.** The roles and responsibilities of stakeholders within ADM(HR-Civ) are not clearly defined, as formal documentation such as SLAs are not in place to outline business responsibilities in relation to HRMS 8.9 in areas including user training, sustainment of the online training material user productivity kit (UPK), and monitoring of the use of HRMS functions and other systems parallel to HRMS. Due to the large number of stakeholders involved and the nature of most cross-functional working relationships as opposed to direct reporting, the absence of defined accountability as well as roles and responsibilities could leave the aforementioned issues unaddressed.

An SLA between the BPOs and the IM/IT Modernization organization is important to address the responsibilities of maintaining the UPK, overall communication strategy and accountability for system change requests. An SLA between the BPOs and the service centres is important to establish the accountabilities in relation to a user training strategy, development and communication of user training material, monitoring of data integrity, monitoring of usage of the system, and formalizing helpdesk services for business issues.

**Cross Functional Roles and Responsibilities.** Similar deficiency in governance exists between ADM(HR-Civ)—the HRMS 8.9 business community and ADM(IM)—the in-service support organization. Without an SLA to clearly define roles and responsibilities, confusion existed over the conflict resolution procedures and decisions on HRMS 8.9 capabilities. In situations where funding and resource limitations could cause competing priorities, it is important to clearly define the procedures in advance for resolving disagreements. Informal working relationships exist to resolve issues at the working level, but no governance committee was set up to meet regularly and in a consistent manner. Currently, DHRIM is in the process of setting up an IM/IT governance committee that will oversee issues relating to HRMS 8.9, with the intended highest level of attendance at the director level from both ADM(IM) and ADM(HR-Civ).

As the HRMS 8.9 business community in DND consists of a large number of organizations working together in cross functional relationships, it was difficult to hold an individual organization accountable when roles and responsibilities were not clearly defined or understood. Important issues such as developing training strategy and the monitoring of data integrity could be left unaddressed.

### Recommendations

4. ADM(HR-Civ) should develop SLAs to clearly identify the roles and responsibilities of HR service centres, BPOs and the IM/IT Modernization organization.

**OPI:** ADM(HR-Civ)

5. ADM(IM), in conjunction with ADM(HR-Civ), should formalize the governance structure for the oversight of HRMS capability decisions.

**OPI:** ADM(IM)/DGEAS

## HRMS Training and Communication

Due to the lack of adequate training and communication between users and various stakeholders in the HRMS 8.9 business community, delivered HRMS capabilities have not been used to their full potential.

**Training.** After the roll-out of HRMS 8.9 in October 2007, there had been formal classroom training for new users. This training was ceased in 2010 due to insufficient funding. As well, ambiguity over the responsibility for training new users and inconsistent training methods existed across ADM(HR-Civ). Common training methods include job shadowing, self-taught paper-based training material and an online automated training environment known as UPK. Different training materials were available in the absence of in-class training to assist users with self-learning. The training material that was used, in addition to the UPK, includes process flow charts and HRMS user manuals. Process charts generally outline the business workflow as it relates to the use of HRMS and user manuals contain detailed instructions and screen shots on when and how to use certain HRMS functions. The audit assessed the availability of training material for nine out of the 10 HR functional areas and determined the following:

- Five of the nine areas have user manuals, though one of the five user manuals is in draft and thus not officially circulated.
- Four of the nine areas have flow charts but only three of them are published.
- Eight out of the nine areas have some degree of online training simulation in the UPK, but the content available does not completely mirror the actual functions used. A review of four of the eight areas with UPK content revealed that most of the functions to generate an extract within HRMS 8.9 are not included in the online simulation. In addition, though UPK is the sole training material for many users, it has not been sustained and updated as required.

It is not expected that all 10 HR functional areas would require the same amount of training material. However, there should be a consistent approach to training in order to minimize the risk of an area operating with insufficient training materials.

**Communication.** The availability of training material and the different ways of obtaining assistance are not clearly communicated to users.

- Three of the 16 users interviewed were not aware of the HRMS training material or UPK that was made available to them by their respective BPOs.
- Three of the 16 users, DHRIM personnel and a BPO reported that it is confusing for users to determine which helpdesk to contact for help. There are two types of help desks related to HRMS 8.9. The first is maintained by DHRIM within ADM(IM) to address technical issues while the other is within ADM(HR-Civ), maintained officially and unofficially by various BPOs, to address business issues such as how to use a certain function within HRMS.



In addition, a monthly BPO working group had been held from the end of phase three of the DIHRS project to February 2011 to communicate issues, plans and priorities between the IM/IT Modernization organization and various BPOs. This working group has not convened since February 2011. The majority of the BPOs interviewed suggested that effective BPO working group meetings are beneficial for keeping them well informed and also for sharing best practices amongst BPOs.

Effective and timely communication and formal training would provide a platform to communicate helpdesk information and available training options for users. Increased awareness of system functions and benefits would enable and encourage individuals to better use the delivered HRMS functions to its full potential.

The roles and responsibilities for the development and delivery of training were not clearly defined and understood. Thus, a comprehensive HRMS 8.9 training strategy did not exist for all HR business areas. Even though efforts exist locally to address individual training needs, some areas were left with insufficient training and support. In addition, the communication was not effective to provide a common platform for the sharing of good practices.

#### **Recommendation**

6. ADM(HR-Civ) should implement a training strategy that aligns with HR objectives for all areas of the HRMS users and create mechanisms for communication between users and various stakeholders in relation to the management and in-service support of HRMS 8.9.

**OPI:** ADM(HR-Civ)

## Usage of HRMS Capabilities

Insufficient configuration of HRMS capabilities and redesign of existing business processes have led to the use of parallel applications and HRMS not being used to its full potential.

HRMS capabilities configured and delivered to date have not been fully utilized within DND. Primary reasons for not using the system whenever possible include the system capability was not configured or delivered, and business processes were not adapted to system changes.

### **System Capability not Configured or Delivered.**

The system capability delivered in some modules of the GC cluster group version of the HRMS 8.9 did not fully satisfy DND's business needs, without configuration, modification and/or customization. For example, due to the absence of an interface between HRMS and two external advertising websites, staffing officers need to re-enter the same job poster, created in HRMS, on the two job advertising websites. As well, applicant information downloads from the two advertising websites can only populate basic data in HRMS, including applicant names, addresses, etc. Qualification data of each applicant such as educational background and prior work experience have to be manually entered into HRMS by staffing officers. This is inefficient and time consuming given the large number of applicants in collective staffing. As a result, the downloaded applicant data is currently loaded into Excel where automatic filters are then applied. Currently, HRMS is only used to record the selected candidates.

### **Good Practices**

The compensation business process is well integrated with the HRMS 8.9 Pay Interface module. In addition to the delivered capabilities meeting the business needs, a workflow is also built in the system to mirror actual compensation processes.

As another example, the current HRMS 8.9 does not have “workflow”<sup>21</sup> built in for the classification process, thus the module does not mirror the actual flow of classification processes. All prior work steps are done outside of HRMS, from management submitting a classification request to the analysis and approval of the impact of the change on an existing organization structure. HRMS is then used to record the decision when the approval is granted on the creation of the new position or the update to an existing position. In addition, because the organization charting tool was not installed, HRMS 8.9 cannot generate organizational charts based on information currently stored in the system.

<sup>21</sup> Workflow is the automation of a business process. The automatic routing of information to the appropriate individuals based on an event trigger, e.g., the classification analyst completes the review of a new position request, and subsequently the request is routed to the supervisor for approval in the system.

**Business Processes not Adapted to System.** Different organizations within DND have varying HR management processes. Some existing processes have not been redesigned to align with HRMS 8.9. Currently, HRMS 8.9 does not allow users to generate customized reports without DHRIM assistance. This has resulted in some organizations relying on manual record keeping while others are using parallel applications when a current HRMS capability could satisfy those needs. For example:

- Records of civilian employees who go on secondment or acting positions are not entered into HRMS 8.9.
- Not all of the L1 training coordinators are currently using HRMS 8.9 to track DND civilian employee training and investment. Based on a recent analysis done by ADM(HR-Civ),<sup>22</sup> training investment recorded in HRMS for fiscal year 2010/11 represents approximately 49 percent of the DND civilian population—significantly less than the actual employee participation rate.

Relying on parallel systems causes inefficiencies from duplication of efforts, increases the potential for input error and reporting inaccuracy due to timing differences, and dilutes the payback of the organization's investment on HRMS.

The HRMS 8.9 capabilities delivered or configured to date have not met users' needs. As well, some existing business processes have not been redesigned to align with HRMS 8.9. As a result, many HR areas are relying on parallel systems or paper-based processes to meet their business objectives.

### Recommendation

7. ADM(HR-Civ) should analyze, integrate and leverage current HRMS capabilities to realize further efficiency gains from the system.

**OPI:** ADM(HR-Civ)

<sup>22</sup> Outlook on Civilian Learning and Professional Development within National Defence, prepared by Director Learning, Training and Professional Development, May 2012.

## General Conclusion

The processes and controls were not always sufficient to ensure DIHRS project objectives and HRMS capabilities were delivered in a cost-effective manner. The intended capabilities of HRMS 8.9 have not been fully configured and delivered to date. Improved training as well as clearly defined roles and responsibilities will contribute to better use of the delivered HRMS capabilities. The issues identified in this audit should be addressed in order to ensure that the capabilities of current and future HRMS versions are fully leveraged to achieve HR objectives in DND. The upcoming implementation of HRMS 9.1 should benefit from the key lessons learned we have identified, particularly in the areas of better integrating the business requirements with the new technology and measuring the system output against the original business requirements. The audit recommendations should contribute to further improve the control, governance and risk management practices in the development, usage and in-service support of HRMS.



## Annex A—Management Action Plan

### DIHRS Project Management and Delivery of HRMS Capabilities

#### CRS Recommendation (High Significance)

1. ADM(HR-Civ) should finalize the HR business modernization program business case to ensure that timely input and agreement from all stakeholders has been sought in order to
  - identify all business deficiencies that have not been satisfied by the current system to date; and
  - document, in detail, the business impact and interdependencies between the current business processes, stakeholders and proposed system solutions.

#### Management Action

As the next step in formalizing the Civilian HR Business Transformation Program, ADM(HR-Civ) has engaged a senior Project Management Executive to finalize the business case for modernization, the Program Charter and Master Implementation Plan, which will include a defined Concept of Implementation.

This program will establish a methodical, consistent approach to modernizing HR program and service delivery models, roles and responsibilities, business processes and enabling technology. The program will identify existing and anticipated business deficiencies. Requirements will be documented in detail, with clear identification of business impacts, interdependencies, stakeholders and recommended technical solutions.

An important element of the program will be formal documentation of the business, data/information, applications and infrastructure architecture required to enable civilian HR management. As well, in determining the ongoing organization, methodologies and resourcing required to sustain people, process and technology, the program will ensure a rigorous change control process to maintain integrity as a whole going forward.

The program will have defined expected outcomes, performance indicators and a measurement strategy to ensure that business deficiencies are satisfied and investments are sound. The program will be governed at a senior level to ensure that business impacts and mitigation strategies are elevated to an appropriate governance level.

**OPI:** ADM(HR-Civ)

#### Target Date:

- Business Case for Modernization – September 2012
- Business Modernization Program Charter – October 2012
- Business Modernization Program Master Implementation Plan – December 2012



**CRS Recommendation (High Significance)**

2. VCDS should ensure that the PAD clearly identifies the criteria on scope change based on when a project should re-seek the appropriate project approval.

**Management Action**

The Business Process Renewal – Project Approval team is examining the issue of cost, schedule and scope changes and relative impact to projects. Included in this study is also a recommendation regarding what metrics are to be used to determine what is in the PL area of responsibility and what will need to be referred to the project approval authority. Once these recommendations are approved, the PAD or its successor will incorporate the changes.

**OPI:** VCDS

**Target Date:** June 2013

**CRS Recommendation (Moderate Significance)**

3. ADM(IM) should strengthen guidance for IT projects on the process of establishing traceability from business requirements to system capabilities and ensure systematic group sharing and documentation of lessons learned from completed projects.

**Management Action**

- **Traceability.** ADM(IM) has implemented the TBS Guidance on Project Gating. The gating process requires the establishment of traceability between business requirements and system implementation details. ADM(IM) will also propose amendments to the PAD to strengthen the requirement to link business requirements to the details of system implementation throughout the life of an IT-enabled project.
- **Lessons Learned.** DGIMPD has re-instituted regular project info-swap sessions to provide more opportunities for the sharing of lessons learned. In addition, ADM(IM) will update internal processes to include specific direction on the continuous collection and sharing of lessons learned throughout the life of IT-enabled projects.

**OPI:** ADM(IM)/DGIMPD

**Target Date:** December 2012

## HRMS Governance

### CRS Recommendation (Moderate Significance)

4. ADM(HR-Civ) should develop SLAs to clearly identify the roles and responsibilities of HR service centres, BPOs and the IM/IT Modernization organization.

### Management Action

A critical success factor of the Civilian HR Business Transformation Program is an integrated governance and oversight structure. The Program's charter will frame the intended business outcome and the governance, oversight, management, and control structures that will be established to achieve the desired business outcome. The charter will specify the roles, accountabilities, and responsibilities of all stakeholders within ADM(HR-Civ), including corporate DGs, BPOs, service delivery DGs/Directors, Director Change Management (the Business Process and Change Management organization), and Director Corporate Services Modernization (the IM/IT modernization organization).

On behalf of ADM(HR-Civ), Director General Human Resource Strategic Direction (DGHRSD) will be accountable to integrate and manage civilian HR people, process and technology needs. The HR-Civ Business Modernization Program Steering Committee, chaired by DGHRSD and supported by a Program Director and Program Management Office, will monitor and direct progress, resolve issues and ensure appropriate change control. DGs and their BPOs will continue to provide functional authority/subject matter expertise in their specific program and service areas.

An integral part of the transformation program will be the formalization of ongoing accountabilities, responsibilities and roles of all stakeholders, governance structures, and documentation of consistent business processes and data/information architectures. Requisite operational-level agreements and memoranda of understanding will clearly establish the "ground rules" governing roles, responsibilities, and accountabilities for enterprise business outcomes, HR service delivery, performance measurement, and continuous service improvement.

**OPI:** ADM(HR-Civ)

**Target Date:**

- Business Modernization Program – October 2012
- Draft Business Modernization operational-level agreements and memoranda of understanding – March 2014
- Final Business Modernization operational-level agreements and memoranda of understanding – March 2015



### CRS Recommendation (High Significance)

5. ADM(IM), in conjunction with ADM(HR-Civ), should formalize the governance structure for the oversight of HRMS capability decisions.

### Management Action

- Key lessons from the DIHRS and CFHIS projects have resulted in improved and ongoing close cooperation between business owners and ADM(IM). ADM(IM) has established DG-level Project Steering Committees to improve coordination, governance and oversight of all high-risk IM/IT projects. For capability development of the HRMS for military personnel, the Chief of Military Personnel, DGIMPD and DGEAS are working closely together and are core members of the Project Steering Committee.
- ADM(IM) has engaged ADM(HR-Civ) to develop a governance process to oversee HRMS capability decisions. DGEAS drafted proposed terms of reference for joint governance of HRMS capabilities and is coordinating endorsement with ADM(HR-Civ).

**OPI:** ADM(IM)/DGEAS

**Target Date:** December 2012

---

## HRMS Training and Communication

### CRS Recommendation (Moderate Significance)

6. ADM(HR-Civ) should implement a training strategy that aligns with HR objectives for all areas of the HRMS users and create mechanisms for communication between users and various stakeholders in relation to the management and in-service support of HRMS 8.9.

### Management Action

ADM(HR-Civ) is working with VCDS to ensure that a training and education element is included in the Defence Management Program direction governing major projects. The intent is to ensure that major projects, including Enterprise Resource Planning (ERP)-centric projects, include both project and regenerative/sustainment training requirements.

As part of its Business Modernization/Transformation Program, ADM(HR-Civ) will design a steady-state support organization, defining ongoing governance, processes, roles and responsibilities, and learning, communication, and performance measurement strategies.

Annex A

ADM(HR-Civ) has already initiated a performance-based learning strategy that will shift training to a business-focused perspective. Training will be performance-based, rather than tool-based, and the learning strategy will optimize use of the Defence Learning Network to address training for the HR community and training in support of ADM(HR-Civ)'s functional authority.

Lessons learned in the upgrade to HRMS 8.9 and subsequent assessments indicate that a “big bang” approach to training must be avoided. Therefore, our sustainment strategy will incorporate all tools (including HRMS) into HR business and service-delivery training, and will define specific roles and responsibilities for designing, planning, and delivering the requisite training.

**OPI:** ADM(HR-Civ)

**Target Date:**

- Business Modernization Program Master Implementation Plan (will outline work breakdown structure and timelines for developing sustainment training strategy) – December 2012

---

## Usage of HRMS Capabilities

### CRS Recommendation (Moderate Significance)

7. ADM(HR-Civ) should analyze, integrate and leverage current HRMS capabilities to realize further efficiency gains from the system.

### Management Action

The principal lesson learned by ADM(HR-Civ) from the HRMS-related challenges of the past decade is that “leaping to technical solutions” will not necessarily produce the desired/required enterprise business outcomes. Simply put: past technology projects have placed too much emphasis on implementing the functionality and features of an application/tool (i.e., HRMS) and not enough emphasis on achieving civilian HR strategic business outcomes, goals, and service-delivery objectives. To remedy this situation, HR-Civ's Civilian HR Transformation Program will be driven by business imperatives, not technology imperatives.

Another lesson learned is that we must not splinter perspective among the suite of systems and tools necessary to enable efficient and effective civilian HR business. HRMS is the core civilian HR system of record, but it is not the only tool needed. Increasingly, deficiencies point to the need for collaboration, document and records management, work management, business intelligence and communication tools that operate with HRMS (and other ERP) as a homogenized enterprise toolset. This element will become

Annex A

increasingly important as the Office of the Chief Human Resources Officer moves into a common configuration for GC HRMS 9.1, based on the Common HR Business Process and flexibility to adapt HRMS to our needs is reduced.

That being said, as part of the Civilian HR Business Modernization Program, GC HRMS 9.1 will be a primary focus, as we validate the civilian HR enterprise-level business vision and develop the following:

- the enterprise business architecture;
- service delivery concepts and practices and supporting business processes;
- workflows and technical specifications;
- system/solution specifications; and
- technical functions and features.

We will validate the technical functions and features of the HRMS 9.1 solution (before any other alternative solution is proposed and/or introduced), and exploit the technical functionality/features of HRMS 9.1 as soon as possible, to align DND civilian HR practices with GC goals/objectives and capitalize on shared investments.

**OPI:** ADM(HR-Civ)

**Target Date:** March 2014

- Validate strategic business vision/needs/requirements/outcomes – December 2012
- Define HR-Civ Enterprise Business Architecture – March 2013
- Exploit HRMS 9.1 functionality/features – March 2014



## Annex B—Audit Criteria

### Objective

To assess whether processes and controls were sufficient to ensure DIHRS project objectives and HRMS system capabilities were achieved in a cost-effective manner.

### Criteria

1. **Requirements and Planning.** Initial development of system requirements and their planning incorporated user input, considered limitations on implementation, and ensured alignment with government directions.
2. **Cost and Budget Control.** Effective controls existed to ensure value for money was achieved during system implementation. Financial impact, if any, was identified and taken into consideration prior to scope changes.
3. **HRMS Capabilities and Functionalities.** System capabilities were delivered and integrated into the business processes as intended. Sufficient policies and procedures were defined and communicated. Adequate training and support was provided for users.
4. **Governance.** Sufficient management oversight supported by timely, relevant and accurate information for decision making existed. Roles and responsibilities were defined and communicated throughout the HRMS development life cycle and post-HRMS implementation.
5. **Risk Management.** Effective risk management incorporating adequate testing procedures, accurate data classification and emergency backup plans existed.

### Sources

- Control Objectives for Information and Related Technology (COBIT), IT Governance Institute.
- Audit Criteria related to the Management Accountability Framework: A Tool for Internal Auditors, TBS.
- Auditing IT Projects, Global Technology Audit Guide.
- Auditing System Development, International Organization of Supreme Audit Institutions (INTOSAI).
- Project Management Body of Knowledge (PMBOK), Project Management Institute.