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Audit of Non-Public Property (NPP)  
Information Management/Information  
Technology (IM/IT) Rationalization:  
Phase 1—Governance

June 2011

7055-21-12 (CRS)



Canada 

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## Acronyms and Abbreviations

Admin Asst	Administrative Assistant
Assoc DG	Associate Director General
BIA	Business Impact Analysis
BCP	Business Continuity Plan
BNA	Business Needs Assessment
CANEX	Canadian Forces Exchange System
CDS	Chief of the Defence Staff
CFO	Chief Financial Officer
CFPFSS	Canadian Forces Personnel and Family Support Services
CIO	Chief Information Officer
COS	Chief of Staff
C PSP	Chief Personnel Support Programs
CRS	Chief Review Services
CWO	Chief Warrant Officer
DCSM	Director Casualty Support Management
DG	Director General
DGPFSS	Director General Personnel and Family Support Services
D QOL	Director Quality of Life
DR	Disaster Recovery
DRP	Disaster Recovery Plan
ExMB	Executive Management Board
FY	Fiscal Year
HQ	Headquarters
IM/IT	Information Management/Information Technology
IM/IT CC	IM/IT Coordination Committee
IS	Information Services
IT	Information Technology
ITSS	Information Technology Support Services
NATEX	North Atlantic Treaty Organization Exchange System
NM	National Manager
NM BAS	National Manager Business Applications Services
NMC&P	National Manager Contracts and Policies



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NM ITSS	National Manager Information Technology Support Services
NM Ops	National Manager Operations
NMTS	National Manager Technology Services
NPF	Non-Public Funds
NPP	Non-Public Property
OPI	Office of Primary Interest
PC	Project Charter
PM	Project Manager
PMF	Project Management Framework
PSP	Personnel Support Programs
QA	Quality Assurance
QC	Quality Control
RMC	Resource Management Committee
RMF	Risk Management Framework
RoD	Record of Decisions
ROM	Rough Order of Magnitude
SDLC	Software Development Life Cycle
SISIP FS	Service Income Security Insurance Plan Financial Services
SOR	Statement of Requirement
SRB	Senior Review Board
UAT	User Acceptance Testing
VP HR	Vice President Human Resources
WAN	Wide Area Network
WG	Working Group





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**Management Controls, Accountability, and Stewardship**

- A forecasting tool (based on growth in demand) needs to be constructed to facilitate the estimation of NPP IM/IT resource requirements and priority setting;
- DGPFS's delivery model for IM/IT customer support services beyond Monday to Friday (7 a.m. to 5 p.m.) needs to be re-assessed;
- Compliance with the NPP IM/IT Project Management Framework (PMF), especially in the area of project cost estimation, requires strengthening;
- An independent Quality Assurance (QA) function needs to be established to monitor the IS Division's software testing process and procedures; and
- A comprehensive performance management regime needs to be implemented to effectively monitor the IS Division's success in achieving DGPFS IM/IT goals and objectives.

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**Note:** For a more detailed list of CRS recommendations and management's response, please refer to [Annex A](#)—Management Action Plan.

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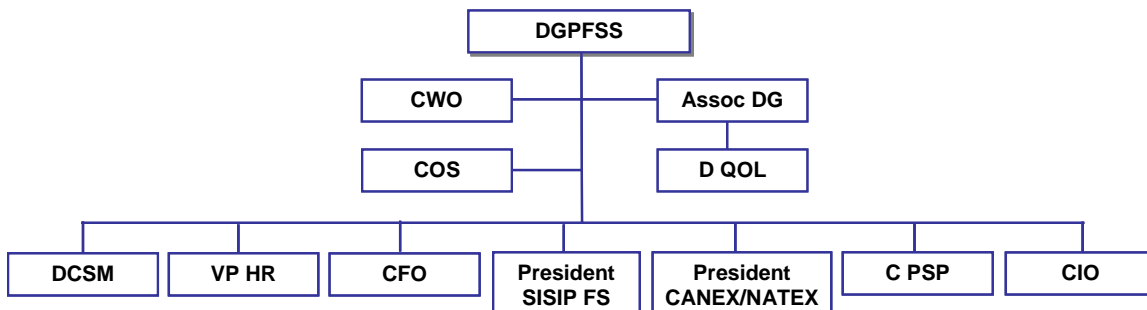


## Introduction

### Background

Prior to April 2008, NPP IM/IT services were managed and provided by the Finance and Informatics Division under the direction of the Chief Financial Officer (CFO). The IS Division was established as a separate entity on 1 April 2008 and the CIO was appointed to lead the Director General Personnel and Family Support Services (DGPFS) IM/IT operations.

As shown in Figure 1, DGPFS’ organization is composed of an Associate Director General (Assoc DG), a Chief Warrant Officer (CWO), a Chief of Staff (COS), and seven operating divisions. The Director, Quality of Life (D QOL) reports to the Assoc DG. DGPFS’ seven operating divisions are headed by the Director, Casualty Support Management (DCSM); the Vice President, Human Resources (VP HR); the CFO; the President of Service Income Security Insurance Plan Financial Services (SISIP FS); the President of the Canadian Forces Exchange System (CANEX) and the North Atlantic Treaty Organization Exchange System (NATEX); the Chief Personnel Support Program (C PSP); and the CIO.



**Figure 1. DGPFS Organizational Structure.** This version of DGPFS’s organizational structure depicts the high-level reporting relationships.

### Objective

The objective of this audit is to provide assurance to the CDS on the effectiveness and adequacy of the risk management, governance processes, and management controls that are in place subsequent to organizational changes in NPP IM/IT governance. The existence of clear, relevant, and measurable objectives and the availability of adequate information for decision making is assessed.

### Scope

The focus of this first phase is on IM/IT governance, which is comprised of the following elements:

- Governance structure and decision-making framework;
- Business Planning and Resource Management;
- Risk Management;
- Project Management; and
- Performance Management.

The audit included a review and analysis of the NPP IM/IT governance structure and strategic direction (i.e., the IS Division’s mandate, structure, key processes, and policies), risk management, and management controls, accountability and stewardship.

Due to the absence of sufficient information pertaining to the demand for NPP IM/IT services, it is not possible to provide an opinion on the adequacy of the resources provided to the IS Division.

## Methodology

- Pre-conduct phase meeting with the CIO;
- Preliminary background research, including a review of governance structure, applicable processes, policies and procedures;
- Review and assessment of the IS Division’s strategic alignment with DGPFSS IM/IT goals and objectives;
- Preliminary interviews with IS Division staff and key stakeholders;
- Review and assessment of the business planning process and the IS Division’s budget allocation;
- Review of supporting documentation for a sample of IM/IT projects;
- Assessment of risk management documentation and practices;
- Review and assessment of performance management practices;
- Follow-up questions and interviews; and
- Periodic audit updates and post-conduct meeting with the CIO, COS, and CFO.





## Findings and Recommendations

### Governance

The transparency and accountability for strategic-level decision making in relation to NPP IM/IT matters needs to be strengthened.

Governance can be defined as the combination of processes and structures implemented by senior management to inform, direct, manage, and monitor the activities of the organization toward the achievement of its objectives. Corporate governance includes the body of processes, policies and procedures that are put in place to guide the organization and ensure compliance with laws and regulations. Policies and procedures define roles and responsibilities and, as such, provide direction to staff.

### Transparency and Accountability

According to COBIT,<sup>1</sup> it is important to establish both IT Strategy and IT Steering Committees.

An IT Steering Committee (or equivalent) should be composed of executive, business, and IT management who:

- Determine prioritization of IM/IT investments and align with the enterprise's business strategy and priorities;
- Track the status of IM/IT projects and resolve resource conflicts; and
- Monitor IM/IT service levels and service improvements.

A strategic level committee should:

- Ensure that IT governance, as part of enterprise governance, is adequately addressed;
- Provide direction and guidance on strategic direction; and
- Review major investments on behalf of the full board.

The IT steering committee function is currently being fulfilled by the IM/IT Coordination Committee (IM/IT CC). The IM/IT CC chairperson is the CIO and the membership is comprised of representatives from each DGPFS Division, a Director General (DG) representative and an Assoc DG representative. The IS Division's five National Managers attend the meetings in an advisory role as required.

IM/IT CC meetings are held once each month and the CIO reports to the DGPFS Executive Management Board (ExMB) twice each year, or as necessary, on the workings and the major decisions of the IM/IT CC. The IM/IT CC agendas, meeting Minutes, records of decisions (RoD), and supporting documentation are available on a common share internal network drive.

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<sup>1</sup> Control Objectives for Information and Related Technology (COBIT), page 42.

The IT strategic committee function is not being adequately fulfilled. The ExMB's role in the IM/IT decision-making process needs to be clearly defined and communicated. All of the members of the IM/IT CC stated that, for most issues relating to policies, projects, and prioritization, the IM/IT CC formulates recommendations which the CIO takes to the ExMB for final approval or endorsement. In addition, formal documentation, such as the Information Services NPP IM/IT Policy Approval Process map, indicates that policy matters are referred to the ExMB for formal review and endorsement or approval. This demonstrates that the ExMB is viewed (widely) as being the strategic-level decision-making body.

However, at the strategic level, NPP IM/IT-related decisions are being made by either the DG or the Assoc DG and these decisions are not being adequately documented. Decisions and direction provided by the DG or Assoc DG are typically communicated verbally or, in some cases, by e-mail messages. As a result, strategic-level decisions and direction related to IM/IT matters are not readily available for review. The absence of information pertaining to specific IM/IT matters presented to the ExMB, the DG and/or the Assoc DG (i.e., lack of meeting agendas, minutes, and RoDs) supports the perception that decisions at the strategic level are being made *ad hoc*. The absence of a structured approach to strategic-level decision making translates into a lack of transparency and accountability in the IM/IT decision-making process.

Some of the IM/IT-related decisions that have been made by the DG or the Assoc DG are referred to in the minutes of IM/IT CC meetings. In addition, the Assoc DG is working on formalizing the process by establishing a Resource Management Committee (RMC) to improve visibility and project tracking. For purposes of increased transparency and accountability for NPP IM/IT matters, it will be critical that the RMC produce agendas well in advance of meetings, publish meeting minutes, RoDs, and action items. Otherwise the issues of transparency and accountability will not have been addressed. Moreover, until transparency and accountability in the IM/IT decision-making process has been improved, IM/IT priorities and strategic resource allocation will remain unclear.

### **Recommendation**

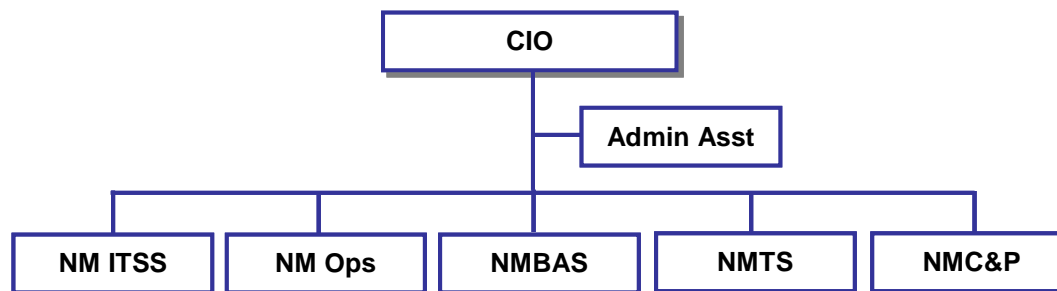
To ensure adequate transparency and accountability, strategic-level IM/IT decisions should be formally recorded in the minutes and RoDs of a strategic-level committee. The Terms of Reference for the RMC should include the production of meeting agendas, minutes, and RoDs. These documents should be maintained in an appropriate database.

**OPI:** DGPFSS

### **IS Division Organizational Review**

The achievement of DGPFSS IM/IT goals and objectives will be influenced by the IS Division's organizational structure (see Figure 2). This structure will impact on the division's ability to, among other things, effectively utilize its resources.

The assessment of the IS Division’s structure and the resulting recommendations are derived from several sections of this report where specific deficiencies are identified. Overall, it is assessed that the current organizational structure does not adequately support the delivery of DGPFS’ IM/IT goals and objectives.



**Figure 2. IS Division Organizational Structure.** This chart shows the IS Division organizational structure down to the level of National Manager.

The IS Division is led by the CIO and it is currently organized into five groups each led by a National Manager (NM).

- National Manager IT Support Services (NM ITSS);
- National Manager Operations (NM Ops);
- National Manager Business Application Services (NM BAS);
- National Manager Technology Services (NMTS); and
- National Manager Contract and Policies (NMC&P).

As of 31 October 2010, the IS Division was comprised of a total of 46 employees, including the CIO and the five National Managers, most of whom are located at DGPFS’ headquarters (HQ) in Ottawa. The IS Division’s annual budget for FY 2010/11 was approximately \$5.6 million.<sup>2</sup>

Of the 46 employees, 12 (26 percent) are in management positions (including the CIO) and eight (17 percent) are in Team Leader/supervisory-level positions, which are effectively management-level positions. Therefore, 20/46 (43 percent) of IS Division staff are in management/supervisory-level positions. During the course of this audit, the CIO stated his intention to “flatten” the organization via a divisional re-organization since it is currently “top heavy.” He noted that an IS Division organizational review is currently under way.

Options that could be considered during the organizational review include:

- The IS Division’s five functional groups could be collapsed down to three.

<sup>2</sup> This does not constitute the entirety of NPP IM/IT-related annual expenditures. Some expenditures, which are difficult to consolidate, are charged directly to DGPFS’ divisional operating budgets.

- The efforts of the NMs could be more focused on strategic planning and management. Alternatively, three national manager positions could be eliminated and replaced by two Directors (Director of Operations and Director, Business Applications Services) who would provide the needed strategic planning and management focus with the remaining two NMs functions being re-evaluated.
- The CIO requires additional support at the strategic planning level. A Strategic Analyst/IM/IT CC Coordinator position could be established to provide support for strategic and business planning, risk management and disaster recovery planning, performance monitoring and management, and IM/IT CC secretariat duties.
- An independent QA position should be established. To ensure independence of this function, the position should not be responsible to the same manager as the software testers.
- A review of the IM/IT Projects Prioritization documentation as well as the number and complexity of projects being managed by each PM indicates that their workloads are unbalanced. When considered in the context of DGPFS software design priorities<sup>3</sup>, the higher priority placed on external acquisition is indicative of a need for an additional PM and, perhaps, a re-evaluation of the number of in-house application developers on staff.

Failure to establish an appropriate organizational structure will impede the IS Division's ability to achieve its objectives and to effectively manage its limited resources. This will have a negative impact on the Division's credibility with its clients.

It should be noted that the recommendations related to the establishment of new positions and the redistribution of certain responsibilities should not be construed as recommendations to increase the IS Division's existing personnel resource budget.

### **Recommendation**

The CIO should conduct a reorganization of the IS Division to better support DGPFS objectives and, in accordance with best practices, should continuously re-evaluate the IS Division structure for efficiencies and effectiveness. The reduction of the number of national managers, the establishment of a Strategic Analyst/IM/IT CC Coordinator position, the establishment of an additional PM position, and a re-assessment of the number of Application Developers should be considered as high priorities.

**OPI:** CIO

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<sup>3</sup> 1. Re-use an existing solution; 2. Purchase a customized commercial-off-the-shelf product; 3. Develop solution in-house; and 4. Out-source solution development (in whole or in part).

### Risk Management


Risk management is an important element of good governance. Risk is an expression of the likelihood and impact of an event with potential to influence the achievement of an organization’s objectives. Organizations that manage risk well are more likely to achieve their objectives. Risk management includes the identification of an organization’s risk tolerance, the assessment and ranking of higher-level risks, the linking of risks with strategic objectives and corporate priorities, and the development of risk responses.

DGPFSS includes a section for the IS Division as part of its strategic-level risk assessment summary. The risk assessment provides rankings of both the potential impacts and the likelihood of occurrence for each of the identified risks and lists 16 additional risk areas.

### Risk Management Plan

Risk rankings have been developed for the DGPFSS high-level risk assessments; ||||| risk responses have been put in place to manage some of the identified risks (e.g., IT security), |||||

In addition, the risk management plan will also be a valuable tool to clearly communicate the residual risk exposure to the IS Division’s stakeholders.

**Recommendation**

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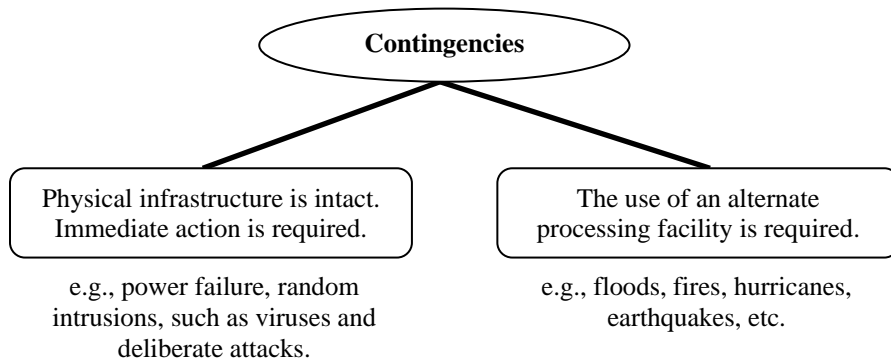
**OPI:** Assoc DG and CIO

**Disaster Recovery Plan**

Information systems and online services have become an integral part of DGPFS business units’ day-to-day operations. As a result, information system availability is critical to business continuity.

A review of IM/IT contingency planning at DGPFS was conducted to determine the extent to which the organization is prepared to continue to process vital transactions in the event of a disaster. Figure 3 provides examples of the two main categories of contingencies for which a practical, tested, and up-to-date DRP is needed. The focus of the review was to determine:

- Whether a planning document containing detailed steps to be taken in the event of a disaster is in place;
- Whether an off-site storage/backup facility has been established for key data, programs, operating systems and documentation; and
- If a test run of the DRP is conducted regularly to reveal any deficiencies or bottlenecks in the recovery plan procedures.



**Figure 3. Contingencies.** This figure provides a brief description of the main contingencies facing IT departments.

The process of contingency planning commences with the performance of a Business Impact Analysis (BIA) in which each business function is identified and assessed in terms of its “criticality.” Objectives for network and systems recovery time, and recovery points are determined. In addition, the periodic back-up and off-site rotation of computer files is a basic part of any disaster recovery/business continuity plan (BCP).

Information contained in a BIA is used as the basis for the development of a DRP and a BCP. The IS Division developed a detailed BIA (22 February 2010) that provides information related to business unit functions and the various business applications’ criticality. It also provides a determination of the maximum permissible delay (recovery time objectives) for each system. The BIA establishes a sound base upon which to build a comprehensive DRP.




|||||<sup>5</sup> At a minimum, a DRP should incorporate procedures, controls and documentation that address the following:

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**Recommendation**


<sup>4</sup> |||||  
|||||

<sup>5</sup> |||||

**Management Controls, Accountability, and Stewardship**

Instances of non-compliance with the CDS’s delegation instrument and deficiencies in project management practices are exposing DGPFS to higher risk of both misuse of non-public funds (NPF) and increased costs of IM/IT projects.

**IS Division’s Budget Allocation**

An assessment of the adequacy of the resources provided to the IS Division requires a review of both the supply of resources (i.e., budgetary allocations) and the demand for IM/IT services.

DGPFS finances its operations via a combination of public and non-public funding. The annual IS Division budget allocation is based on policy direction<sup>6</sup> that stipulates the maximum levels of public funding for DGPFS IM/IT costs. In accordance with this direction, DGPFS sets the level of public funding for all of its IM/IT-related costs at 47.1 percent when determining the IS Division’s annual budget allocation. Consequently, the IS Division’s initial level of non-public funding represents 52.9 percent of the initial funding allocation. Additional non-public funds in the form of contributions from SISIP FS, CANEX and NATEX are then added to the allocation. Also, additional public and non-public funds related to IM/IT projects and initiatives can be added to this “baseline” allocation. SISIP FS, CANEX and NATEX contribution levels were determined a number of years ago and have not changed.

The use of this funding methodology is of some concern (i.e., for performance management) since it does not directly link annual budget allocations to services provided by the IS Division. In FY 2010/11 the IS Division’s overall budget grew by 9.9 percent. Although the growth in supply may appear to be adequate, a determination of the adequacy of supply must be made by comparing supply growth to the growth in the demand for IM/IT services.

The yearly contributions for the past two years from SISIP FS, CANEX and NATEX are shown in Table 1.

DGPFS Division	Contribution
SISIP FS	\$ 358,062
CANEX	\$ 502,461
NATEX	\$ 36,630
<b>Total</b>	<b>\$ 897,153</b>

**Table 1. Contributions to IS Division Budget.** This table shows the contributions provided by SISIP FS, CANEX, and NATEX to DGPFS’s IS Division’s annual budgets for FY 2009/10 and FY 2010/11.

<sup>6</sup> “A-PS-110-001/AG-002, Morale and Welfare Programs in the Canadians Forces: Volume 1 – Public Support for Morale and Welfare Programs and Non Public Property,” 23 March 2007, Chapter 5, Table 5-10-2.



These contributions were determined a number of years ago and have not been adjusted to reflect either inflation or the changes in the level of IM/IT services provided by the IS Division. The risk of the IS Division's not being adequately funded to meet the demand for IM/IT services could increase if these contributions are not adjusted accordingly.

Since the contribution amounts were originally derived by determining the IM/IT costs of the three contributors prior to the rationalization of IM/IT services under the IS Division, there continues to be an expectation that a link exists between these contributions and some level of IM/IT services. Presently, these contributions (from DGPFSS's three profit centres) represent an augmentation to the IS Division's annual funding allocation and do not represent direct payment for services received. This change in approach has not been clearly communicated by senior leadership and, hence, the efficiency of the IS Division's operations is questioned by its clients. The use of this methodology (i.e., the articulation of these annual contributions into the IM/IT budget) perpetuates the notion that the contributions are tied to specific levels of IM/IT service delivered to SISIP FS, CANEX and NATEX even though the funds are needed to cover, among other things, common IM/IT costs.

### **Recommendation**

The methodology used to determine the contributions from CANEX, NATEX and SISIP FS should be re-evaluated.

**OPI:** CFO

### **Tracking Trends in Demand for NPP IM/IT Services**

The IS Division is not using historical information related to the growth in demand for IM/IT services to estimate its resource requirements. However, the CIO has recognized a need for improvements in IM/IT demand management.<sup>7</sup>

The CIO has noted some items that may be indications that the demand for IM/IT services is growing faster than the supply of resources (i.e., un-prioritized activities and clients, budget cuts, and funding pressures). Supporting un-prioritized clients and activities can limit the IS Division staff's ability to efficiently perform their day-to-day duties. Hence, productivity can be adversely affected and the IS Division could be perceived as being inefficient. Continuous cuts to the IS Division training budget is not a sustainable cost control measure and could lead to technical staff not having the necessary knowledge and skills required in the rapidly changing IM/IT environment. This could adversely affect individual performance and the achievement of IS Divisional goals and objectives.

Insufficient information pertaining to trends in demand for NPP IM/IT services inhibits a useful assessment of the adequacy of resources provided to the IS Division.

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<sup>7</sup> "Managing IS Division's Demand: An Enhanced Model of Activity Based Budgeting," Version 1.0.

**Recommendation**

For purposes of strategic planning and resource allocation, the CIO should ensure that the demand trends for IM/IT services are tracked and that this information is used to estimate DGPFS NPP IM/IT resource requirements and as input into the establishment of the IM/IT funding baseline.

**OPI:** CIO

**Demand Analysis for Help Desk Services**

As businesses rely more heavily on IM/IT services, it is becoming clear that business and IT are integrally linked. Consequently, growing user expectations and the increasing volume of calls have made the operation of a scalable, highly available user support centre a difficult undertaking. Resource constraints, such as staffing and funding, make the provision of IM/IT customer support services beyond a Monday to Friday (7 a.m. to 5 p.m.) delivery model a challenge.

The CIO has indicated that there may be a need to transition the IS Division into a 24/7 service delivery organization. A review of the IS Division web site and its “Information Technology Support Centre (ITSS) On-Call Schedule” indicates that the IS Division currently provides help desk customer service from 7 a.m. to 11 p.m. on weekdays and from 7 a.m. to 7 p.m. on weekends using a combination of two full-time Category I help desk employees and seven Category II IT Support Specialists.

Both the help desk employees and the IT Support Specialists are on duty 7.5 hours (day shift) Monday to Friday. Based on the posted schedule, on average, the seven IT Support Specialists are also responsible for help desk duties four evenings (i.e., 4 days x 6 hrs = 24 hrs) and a weekend (2 days x 10 hrs = 20 hrs) for a total of 44 hours per month. The IS Division’s informal internal policy is that these 44 hours are compensated at the rate of one hour of compensatory time off for every four hours of scheduled duty. It should also be noted that the two Category I employees are not included on the ITSS On-Call Schedule.

An analysis of the demand for help desk customer support services should be undertaken. Based on the result, a cost-benefit/options analysis should be conducted with regard to the provision of these services. For example, options could be considered in which the seven IT Support Specialists’ Monday to Friday (7.5 hours) shifts are staggered with some Specialists working flexible shifts (e.g., 7 a.m. to 3 p.m.; 8 a.m. to 4 p.m.; 9 a.m. to 5 p.m.; and at least one working a 3 p.m. to 11 p.m. shift. If necessary, the 3 – 11 shift could be rotated). This would eliminate the need for a weeknight IT Support Specialist required availability schedule and they would only be required to cover the help desk once every seventh weekend. The provision of NPP IM/IT customer support services, beyond the Monday to Friday 7 a.m. to 5 p.m. service delivery model, needs to be re-assessed.

The issues relating to the demands being placed on IT Support Specialists raised during the course of this audit will be examined in detail as part of CRS audit NH0901 “Audit of Performance Management and Retention of NPF Staff.”

**Recommendation**

The CIO should undertake an analysis of the demand for help desk customer support services. Based on the result, a cost-benefit/options analysis should be conducted with regard to the provision of these services.

**OPI:** CIO

**Category II IT Support Specialist Help Desk Duties**

The IT Support Specialists help desk customer support duties and responsibilities are not clearly defined or communicated. As a result, there is confusion amongst the IT Support Specialists as to the specific types or level of service that must be provided to the client on weekdays after 5 p.m. and on weekends. Hence, the level of service provided to clients can be inconsistent. The Category II IT Support Specialists help desk customer support duties and responsibilities need to be clearly defined and communicated.

**Recommendation**

The CIO should ensure that the Category II IT Support Specialist help desk duties and responsibilities are clearly defined and communicated to all stakeholders.

**OPI:** CIO

**Technology Roadmap**

Capacity planning is used to determine whether the organization's current and future hardware resources relative to its priorities are, and will continue to be, sufficient.

A technology roadmap is a plan that matches short- and long-term organizational goals with specific technology solutions to help meet those goals. The process of developing a roadmap has three major benefits:

- It helps in reaching a consensus about a set of needs and the technologies required to satisfy those needs;
- It provides a mechanism to help in forecasting technological developments; and
- It provides a framework to help with planning and coordinating the selection, acquisition, and implementation of technological developments.

The IS Division has developed an initial technology roadmap. The CIO stated that the technology roadmap will be continuously evolving to reflect the pace of technological change and will identify the technological solutions required to support the achievement of DGPFS medium and long-term goals and business objectives. DGPFS capacity planning should be strengthened to ensure that the IS Division's medium-term and long-term goals and objectives are aligned with DGPFS's IM/IT requirements.

**Recommendation**

The CIO should ensure that a DGPFS technology roadmap is developed and updated periodically.

**OPI:** CIO

**Project Management.** Organizations, including DGPFSS, recognize the benefits that can be realized by employing effective IM/IT project management practices such as quicker product development, more efficient use of resources, and improved cross-functional communication. Three keys to project success are as follows:

- Consistent top management support;
- Use of a sound project management methodology; and
- Effective leadership by an experienced project manager.

While the use of these keys does not guarantee success, the risk of failure can be reduced by doing so.

### **IM/IT Projects Prioritization**

An IM/IT projects prioritization process is currently being developed by IS Division staff and the IM/IT CC. A review of the documentation provided to the IM/IT CC members for the September and November 2010 meetings indicates that the process is still under development. As per the Priorities Scoring Sheet provided to the IM/IT CC members for the November 2010 meeting, the following prioritization criteria are being employed:

- Alignment with strategic objectives;
- Value to the business line;
- Statutory compliance; and
- Impact/risk of not doing.

Although the selection criteria do not include an “affordability” criterion, the final step in the prioritization process is the creation of a project implementation list which, to some extent, is based on funding availability.

Value to the business line is an important criterion. However, the “impact/risk of not doing” should not be considered as a separate criterion since it is a vital part of the value assessment. The value added by a project is the difference between the state that would result if the project were conducted vs. the state that would exist if the project is not conducted. This difference represents the value that the project is providing to the organization. Considering these elements as separate criterion could create confusion during project prioritization since decision makers will have difficulty defining the value that the project is providing to the business line.

In conjunction with the removal of the fourth criterion, the Priorities Scoring Sheet should be amended to include two additional project prioritization criteria:

- project urgency, and
- estimated project risk.

The proposed selection criteria should also include project risk. Estimated project risk (e.g., cost risk, schedule risk, and performance risk) and the associated risk responses should be considered.

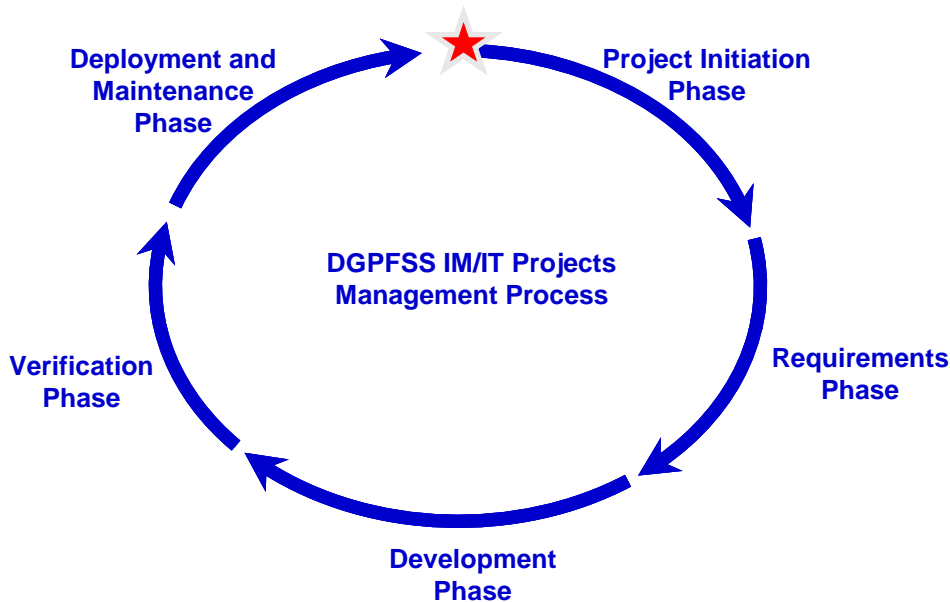
Successful implementation of the IM/IT projects prioritization process will depend on, among other things, senior management’s formal endorsement and continued commitment. Senior management should be prepared to remain visibly and vocally behind the process since their support is important in making DGPFS IM/IT priorities clear to staff. Otherwise the risk of failure is high. This, in turn, could result in increased client/stakeholder frustration and IM/IT projects being implemented in an un-coordinated, inefficient, and *ad hoc* manner.

### Recommendation

The CIO should amend the IM/IT Projects Priorities Scoring Sheet to include “impact/risk of doing nothing” as a vital part of the “value to the business line” criterion. Two additional criteria should be considered: (1) project urgency, and (2) project risk.

**OPI:** CIO

**The Software Development Process.** There is no unequivocal research showing that any specific approach to software development is superior. The most important thing is to have a well-governed methodology in place to oversee and manage the software development process. Some of the approaches that can be used are the Software Development Life Cycle (SDLC), Prototyping, Rapid Applications Development, and Joint Applications Development. The DGPFS IM/IT Project Management Framework (PMF) is based on the SDLC approach. As depicted in Figure 4, DGPFS’ software development process can be divided into five distinct phases: (1) Project Initiation Phase; (2) Requirements Phase; (3) Development Phase; (4) Verification Phase; and (5) Deployment and Maintenance Phase.



**Figure 4. Software Development Life Cycle.** This diagram shows the five phases of the software development life cycle, with Project Initiation as the starting point.

According to the PMF, the project initiation phase commences when clients submit a statement of need to their IS Division PM. Following consultation with the appropriate authority (e.g., CIO, IM/IT CC, ExMB), a decision is made about whether the client's need will be addressed as a formal IM/IT project.

For IM/IT projects, the client and the PM must jointly prepare a Business Needs Assessment (BNA) to further elaborate on the client's business need. The BNA process requires the preparation of a rough-order-of-magnitude (ROM) project schedule, a ROM project cost baseline, and a preliminary risk assessment. This information is meant to be used to determine project complexity and, hence, the governance process to be employed in managing the project. A streamlined approach can be used to manage low complexity projects. For highly complex (i.e., higher risk) projects, a more rigorous process is required which includes the development of a Project Charter (PC) and the establishment of a Senior Review Board (SRB).

### **Project BNA**

As per the PMF, critical decisions about the governance of IM/IT projects are based on project complexity which is measured across four dimensions: scope, length, cost, and risk. Therefore, early in the process ROM estimates of project length, cost and risk are required in order to determine the appropriate governance process to be employed. The BNA is documented at the end of the project initiation phase. Important information that is required to determine project complexity and the governance process to be employed should be included in the BNA.

During a review of a sample of twelve IM/IT projects, it was observed that much of the information required to render an informed determination about project complexity was not in place at the time that the BNA was documented. Consequently, decisions relating to project complexity and governance are being made without much of the information that is required to do so. This increases the risk of erroneous decisions being made about project complexity. Decisions being made by senior management related to strategic resource allocation and project priorities that are based on incomplete or incorrect information increase the risk of IM/IT project objectives not being achieved.

### **Recommendation**

The CIO should ensure that, at a minimum, ROM estimates for project cost, risk, and schedule are completed in the BNA for each project.

**OPI:** CIO

### **IS Division Time Tracking System and Proper Cost Estimates**

IM/IT project cost estimation and budgeting is inadequate. A proper cost estimate is one of the four important elements required (the others are scope, schedule, and risk assessment) to support effective project management. The cost estimate is required to facilitate the development of planning structures and specific management controls. The preparation of proper cost estimates for IM/IT projects is important to DGPFSS for a number of reasons such as:

- To provide senior management and IS Division clients with complete visibility about what IM/IT projects are actually costing. This information will assist decision-makers with strategic planning, prioritization, and resource allocation;
- A detailed cost estimate is also necessary to facilitate effective project monitoring and performance measurement; and
- To consistently identify and track certain IM/IT project costs so as to allow for their proper treatment from an accounting perspective.

While the PMF requires the preparation of cost estimates for all IM/IT projects, it does not provide direction or guidance on how to properly cost a project. It is important to provide direction about what types of costs should be included, such as:

- IS Division project management staff salaries and benefits (e.g., Project Managers, Application Developers, Software Testers, Technical Writers);
- Hardware purchases;
- External costs (e.g., consulting, software acquisition); and
- The specific rates to be used (e.g., labour, inflation, contingency).

A sound understanding of the costs of IM/IT assets assists senior management in making rational decisions about IM/IT investments. This requires an analysis of the full costs of IM/IT asset ownership (i.e., total cost of ownership). Failing to consider medium and long-term costs could substantially underestimate the economic impacts of IM/IT investment decisions.

Cost estimates are not included with the project documentation for 10 of the 14 (71.4 percent) sampled IM/IT projects. Of the four (28.6 percent) projects for which cost estimates were prepared, none of the cost estimates are adequate since they do not include internal project management costs. Only external contracting and/or external purchase costs are identified (i.e., invoiced costs). IS Division staff (i.e., CIO, NMs, and PMs) and the CFO confirmed that IM/IT project internal costs are not tracked and that a time tracking system has not been developed to support such a process. While a sophisticated system is not required, an effective time tracking tool is a necessary element of a reliable internal IM/IT project cost tracking process.

Although the four IM/IT projects for which cost estimates are available provide the estimated costs of software application acquisition or third-party development, the costs associated with contracted maintenance agreements are not included. Since all software and web applications require periodic maintenance and upgrades, it is important from a strategic planning, prioritization and resources allocation perspective, to identify the estimated total cost of owning a particular asset over its useful life.

The absence of project cost estimates inhibits the effective monitoring of project costs and the comparison of actual costs to budgets. This increases the risk of, among other things, project cost over-runs.

**Recommendation**

The CIO and CFO should ensure that a formal time tracking system is developed and implemented and that proper cost estimates are prepared for every IM/IT project. These costs estimates should provide information about the forecasted total cost of owning the asset over its useful life.

**OPI:** CIO and CFO

**Project Risk Assessments**

The risk assessment is the second of the four important elements required to support effective project management. The NPP IM/IT PMF requires the performance of a risk assessment during the project initiation phase. During the review of the sampled IM/IT projects, it was observed that none of the BNAs include a proper risk assessment. As per the PMF, the creation of a PC is mandatory for medium and high-risk projects. Of the sampled projects requiring a PC, only one (20 percent) includes a proper risk assessment. While the other four PCs do include descriptions of some risks and a rating (high, medium, or low) for each risk identified, risk impact assessments and risk responses (i.e., accept, avoid, transfer, or mitigate) are not provided. In addition, a review of the available SRB and Working Group (WG) documentation indicates that issues related to risk are not being adequately reported as part of project progress reports. Inadequate risk identification and management increases the likelihood that projects will fail to achieve their objectives.

**Recommendation**

The CIO should ensure that proper risk assessments are developed and included in project documentation and progress reports to SRBs and WGs.

**OPI:** CIO

**Independent QA Function**

While the IS Division's documentation uses the term "QA" when discussing both quality assurance and quality control (QC), it is important to make a clear distinction between these two inter-related functions. The QA function is meant to provide assurance that proper standards and procedures are followed during QC planning, testing, de-bugging, and reporting for software development projects. Therefore, it is important that the QA function be independent of the QC function.

The IS Division's QA staff consists of the QA Manager and a QA Specialist. The QA Manager reports directly to the NM BAS. The QA staff support the efforts of eight application developers, a web developer, and three project managers. The QA process and procedures are defined in a draft document entitled "QA Roles and Procedures"<sup>8</sup> in which each phase of DGPFSS' QA development cycle is explained. In addition, software testing responsibilities are integrated into the IM/IT PMF. The existing workload requires that the QA staff focus all of their efforts on the QC function and, consequently, the QA

<sup>8</sup> "Quality Assurance Roles & Procedures: A Software Quality Assurance Guideline," 17 July 2008.



function is not being performed. The QA staff are involved in the development of test plans, test cases, and test programs. They also perform the software testing function (i.e., QC).

Since the IS Division's QA Manager is primarily engaged in QC activities, in cases where he developed the test cases and/or test plans and/or conducted the tests, his objectivity would be compromised if he were to perform the QA function as well. If the QA function is not performed, the risk that the QC function will not be conducted in a consistent and effective manner is increased. This, in turn, could result in extended project timelines or software that is not adequately tested prior to implementation.

### Recommendation

The CIO should establish a QA function that is independent of the QC function. In addition, the CIO should require that two copies of all software testing documentation be maintained. One copy should be maintained by the PMs and one copy should be kept in a separate QA directory to which only the QA staff have access.

**OPI:** CIO

### Project Phase Sign-offs

Among the PMF's various deliverables are four important documents that require the client's signature:

- BNA Sign-off (initiation);
- Statement of Requirement (SOR) Sign-off (requirements);
- User Acceptance Testing (UAT) Sign-off (verification); and
- Release Sign-off (verification).

These sign-offs are important because they provide a series of checks and balances within the software development process to ensure that the final product addresses the client's needs and respects the stated requirement. Since the selected sample included IM/IT projects at various phases of the SDLC, the review of documentation related to sign-offs was conducted using sub-samples of the original set. For example, at the time that the review was conducted, only 10 of the 14 sampled projects had completed the requirements phase. Therefore, these 10 projects were reviewed to assess the existence and adequacy of SOR documentation.

**BNA Sign-off.** The BNA is developed during the project initiation phase and the client is supposed to sign off before the project moves to the next phase of the process. This document is important since both the client and the PM prepare the BNA to define, among other things, the client's business need, the scope of the project, and project complexity. The BNA's for nine projects were reviewed and only one (11 percent) was not properly signed off.



**SOR Sign-off.** During the project requirements phase, the client’s needs are articulated in a formal SOR which must be signed off by the client. Of the 10 projects that were reviewed, only five (50 percent) included a signed-off SOR with their project documentation. Although the requirement tends to expand during a project’s design and development phases, an incomplete SOR can result in a poorly defined requirement, which could lead to substantial “scope creep” as the project progresses. Scope creep often leads to expanded timelines, increased resource requirements, and inter-divisional friction (i.e., between the IS Division and its clients).

**UAT Sign-off.** UAT is another important step in the process since it is the client’s opportunity to “beta test” the software and to confirm that the product meets the identified requirement. The client is responsible for UAT, including determining the level of UAT to be undertaken and the level of risk to be accepted. The client may choose to bring an application into production without doing any UAT at all. Only five projects in the sample had completed the verification phase. Three of the five (60 percent) do not have UAT sign-offs included with their project documentation.

**Release Sign-off.** The Release Sign-off is the last step in the development phase and represents the “authorization” to move the software application into production. This document is important since the client’s signature confirms acceptance of the product.

Five of the sampled IM/IT projects have completed the verification phase. Of these, three (60 percent) do not include Release Sign-offs. These sign-offs serve as important controls to ensure that the final product meets the needs of the client and respects the requirement. There is an increased risk of the final product not meeting the client’s needs if these sign-offs are not obtained for each project.

### Recommendation

The CIO should ensure that the PMs obtain client signatures on the BNA, SOR, UAT, and Release documentation for NPP IM/IT projects. Copies of these sign-offs should be maintained as part of the project documentation.

**OPI:** CIO

### CDS Delegation of Authorities for NPP IM/IT Expenditures

PMs are not ensuring that payment of NPP IM/IT invoices are being authorized by the appropriate authorities. In addition, the NPF accounting offices are processing these improperly authorized IM/IT invoice payments.

The current CDS delegation of authorities was approved on 3 August 2010, thereby replacing the version that was approved in December 2006. In both versions, authority to approve NPP IM/IT expenditures is restricted to only a few individuals. In the current version, DG has been delegated the authority to approve all NPP IM/IT expenditures, the Assoc DG can approve up to \$500,000, the CIO up to \$250,000, and the IS Division’s NMs up to \$100,000 for HQ IM/IT expenses.

A review of a sample of NPP IM/IT transactions showed that payments were approved by persons who do not have the requisite authority to do so and that these improperly authorized payments were processed by the NPF Accounting Offices. For example, invoices for an important human resources information systems project and PSP software maintenance were “approved” for payment by individuals who do not have the delegated authority to do so. Non-compliance with the CDS delegation of authorities could result in the misuse of NPF. There is also an increased risk that NPP IM/IT expenditures could be miscoded and that IM/IT assets could be undervalued.

### **Recommendation**

The CIO should ensure that the PMs obtain the proper authorizations for payment of NPP IM/IT-related invoices. In addition, the CFO should ensure that the NPF accounting staff are aware of the IM/IT authorities and confirm that these invoices are properly approved prior to processing the payment.

**OPI:** CIO and CFO

At the divisional level, the achievement of both financial and non-financial goals and objectives should be measured and monitored. Ultimately, the question that was examined is: How does DGPFS monitor and measure the IS Division’s performance?

### **Performance Management Regime**

DGPFS does not have a comprehensive corporate-level performance regime in place to effectively monitor IS Division success in achieving its goals and objectives. In addition, NPP IM/IT project performance is not being effectively monitored or measured.

While most key IM/IT metrics are not currently being compiled and used to measure performance, the CFO and CIO do monitor IS Division spending against budgeted targets (i.e., variance analysis). However, a review of the business planning and resource allocation processes indicates that IM/IT inputs (i.e., resources) are not explicitly linked to IM/IT outputs (i.e., products and services). Consequently, senior management is not adequately equipped to monitor or measure the IS Division’s ability to achieve DGPFS IM/IT goals and objectives. In addition, without reliable information pertaining to key IM/IT metrics, it will be difficult for the CIO to accurately estimate and articulate the resources required to effectively manage the organization’s future requirement for IM/IT services.

The CIO has implemented some measures to monitor IS Division performance. For example, in their role as customer relations managers, the IS Division PMs attempt, in a qualitative sense, to gauge customer satisfaction levels. In addition, the CIO meets with the other DGPFS section heads, at least annually, to discuss their issues and concerns. As part of the DGPFS New Deal initiative, a comprehensive performance management regime is being developed.



**Recommendation**

The performance management regime that is being developed as part of the DGPFSS New Deal initiative should incorporate key IM/IT metrics.

**OPI:** Assoc DG

**Project Progress Reports**

The PMF states that low and medium complexity projects require the establishment of WGs and that high complexity projects require the establishment of SRBs. The prescribed mandates of these WGs and SRBs include monitoring project progress and regularly reviewing project risks. In addition, the PM is responsible for reporting on all matters related to the management of NPP IM/IT projects. Specifically, the PMs are required to include project progress reports in the information package that is presented to each SRB and WG member prior to meetings. The PM is also responsible for distributing RoDs from these meetings.

While the PMF requires the PMs to provide SRB and WG members with, among other things, project performance reports, the PMs have not been provided with specific guidance on either the format or content of these reports. Consequently, NPP IM/IT project performance reporting (cost, scope, schedule, and risks) is not being adequately reported to SRBs and WGs. For example, since estimated project costs are not determined for most IM/IT projects, PMs are not able to adequately report on project performance against financial/budgeting criteria.

**Recommendation**

The CIO should ensure that the PMs are provided with specific guidance on the format and content of project progress reports and that these reports are provided to SRB and WG members at least annually.

**OPI:** CIO

## Annex A—Management Action Plan

### Governance—Transparency and Accountability

#### CRS Recommendation

1. To ensure adequate transparency and accountability, strategic-level IM/IT decisions should be formally recorded in the minutes and RoDs of a strategic-level committee. The Terms of Reference for the RMC should include the production of meeting agendas, minutes, and RoDs. These documents should be maintained in an appropriate database.

#### Management Action

Agreed. The CFPFSS Resource Management Committee was created to develop plans, establish priorities, and ensure that projects align with priorities. One of the RMC's specific responsibilities is to track progress of new initiatives, programs, IT and infrastructure projects. Two meetings have already taken place in 2011.

**OPI:** DGPFS

**Target Date:** Completed

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### Governance—IS Division Organizational Review

#### CRS Recommendation

2. The CIO should conduct a reorganization of the IS Division to better support DGPFS objectives and, in accordance with best practices, should continuously re-evaluate the IS Division structure for efficiencies and effectiveness. The reduction of the number of national managers, the establishment of a Strategic Analyst/IM/IT CC Coordinator position, the establishment of an additional PM position, and a re-assessment of the number of Application Developers should be considered as high priorities.

#### Management Action

Agreed. A reorganization is currently being conducted and, consistent with industry best practices, the CIO commits to an ongoing review of the IS Division organizational structure to ensure continued efficient and effective IM/IT support to DGPFS.

**OPI:** CIO

**Target Dates:** 1. Reduction of NM positions (July 2011); 2. Director IM/IT Operations hired (July 2011); 3. Request for RMC approval of additional PM (September 2011); 4. Strategic Analyst IM/IT CC Coordinator position considered by RMC (September 2011); and 5. Initial re-assessment of the number of Application Developers (December 2011).

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## Management Controls, Accountability, and Stewardship—Contribution Methodology

### CRS Recommendation

5. The methodology used to determine the contributions from CANEX, NATEX, and SISIP FS should be re-evaluated.

### Management Action

Agreed. Public and non-public funding baselines for IM/IT will continue to be reviewed as part of the FY 2011/12 Quarterly Financial Review process and will be taken into consideration in the development of Business Plans FY 2012/13. As part of these processes the methodology used to determine level of contribution from CANEX, NATEX and SISIP FS will be re-evaluated.

**OPI:** CFO

**Target Date:** September 2011

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## Management Controls, Accountability, and Stewardship—Tracking Trends in Demand for IM/IT Services

### CRS Recommendation

6. For purposes of strategic planning and resource allocation, the CIO should ensure that the demand trends for IM/IT services are tracked and that this information is used to estimate DGPFS NPP IM/IT resource requirements and as input into the establishment of the IM/IT funding baseline.

### Management Action

Agreed. The CIO will ensure that demand trends for IM/IT services are tracked and used as input into the IM/IT funding baseline.

**OPI:** CIO

**Target Date:** March 2012

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## Management Controls, Accountability, and Stewardship—Demand Analysis for Help Desk Services

### CRS Recommendation

7. The CIO should undertake an analysis of the demand for help desk customer support services. Based on the result, a cost-benefit/options analysis should be conducted with regard to the provision of these services.

### Management Action

Agreed. Demand Management—i.e. the management of all requests made to the IS Division for products or services—is a key priority for the IS Division. ITSS is continuing to centralize requests for service by routing all requests through a specialized Helpdesk application. This will provide demand trends for that functional area. IS Division is working to define all standard products and services, expose them through our Product/Service Catalogue, and control/shape demand through guided self-service initiatives. These initiatives will help to measure the demand for IS Division products and services and track demand trends over time.

**OPI:** CIO

**Target Date:** March 2012

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## Management Controls, Accountability, and Stewardship—Category II IT Support Specialist Help Desk Duties

### CRS Recommendation

8. The CIO should ensure that Category II IT Support Specialist help desk duties and responsibilities are clearly defined and communicated to all stakeholders.

### Management Action

Agreed. The CIO will undertake to ensure that existing descriptions are reviewed, clarified, and communicated to all stakeholders.

**OPI:** CIO

**Target Date:** September 2011

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## Management Controls, Accountability, and Stewardship—Technology Roadmap

### CRS Recommendation

9. The CIO should ensure that a DGPFS technology roadmap is developed and updated periodically.

### Management Action

Agreed. An initial Technology Roadmap has been drafted that maps desired strategic outcomes to business initiatives and to technology initiatives. This document will be evolved and maintained to clearly map out the technology direction for DGPFS.

**OPI:** CIO

**Target Date:** December 2011

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## Management Controls, Accountability, and Stewardship—IM/IT Projects Prioritization

### CRS Recommendation

10. The CIO should amend the IM/IT Projects Priorities Scoring Sheet to include “impact/risk of doing nothing” as a vital part of the “value to the business line” criterion. Two additional criteria should be considered: (1) project urgency; and (2) project risk.

### Management Action

Agreed. The criteria “impact/risk of doing nothing” has been included.

Disagree. Project urgency and project risk will be considered as factors in implementation and not in business need prioritization.

**OPI:** CIO

**Target Dates:** 1. Inclusion of “impact/risk of doing nothing” (completed); 2. Not applicable

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**Management Controls, Accountability, and Stewardship—Project BNA****CRS Recommendation**

11. The CIO should ensure that, at a minimum, ROM estimates for project cost, risk, and schedule are completed in the BNA for each project.

**Management Action**

Agreed. These components are part of the BNA structure and it is noted that the deficiency identified in the Audit Report relates to this information not being filled out for every project. The CIO will communicate the necessity of full compliance. The IM/IT CC will not endorse, approve, or recommend any project for which the required information has not been provided.

**OPI:** CIO

**Target Date:** Completed

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**Management Controls, Accountability, and Stewardship—IS Division Time Tracking System and Proper Cost Estimates****CRS Recommendation**

12. The CIO and CFO should ensure that a formal time tracking system is developed and implemented and that proper cost estimates are prepared for every IM/IT project. These cost estimates should provide information about the forecasted total cost of owning the asset over its useful life.

**Management Action**

Agreed. IS Division employees are tracking time spent supporting Divisions/key projects. However, it is acknowledged that a centralized and formal mechanism is not yet in place. An informal time tracking system is currently in place within the CIO Division. This system will be formalized in order to better support decision making. Accrued visibility over personnel costs will assist in estimating the full life cycle cost of IM/IT assets and will be used to assess/develop cost estimates for IM/IT projects presented to the RMC.

**OPIs:** CIO and CFO

**Target Date:** September 2011

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## Management Controls, Accountability, and Stewardship—Project Risk Assessments

### CRS Recommendation

13. The CIO should ensure that proper risk assessments are developed and included in project documentation and progress reports to SRBs and WGs.

### Management Action

Agreed. Risk assessments should be included in the existing documentation. This deficiency relates to the fact that it was not completely filled out in the projects that were sampled. The CIO will communicate the necessity of full compliance. The IM/IT CC will not endorse, approve, or recommend any project for which the required information has not been provided.

**OPI:** CIO

**Target Date:** Completed

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## Management Controls, Accountability, and Stewardship—Independent QA Function

### CRS Recommendation

14. The CIO should establish a QA function that is independent of the QC function. In addition, the CIO should require that two copies of all software testing documentation be maintained. One copy should be maintained by the PMs and one copy should be kept in a separate QA directory to which only the QA staff has access.

### Management Action

Agreed. However, the IS Division is also deficient in several other functions that are considered a higher priority than QA. In consideration of these priorities, the timeline will be 3-5 years.

Agreed. There will be a directory for copies which is only accessible by QA staff.

**OPI:** CIO

**Target Dates:** 1. Establish independent QA function (May 2015); and 2. Create separate directory (June 2011)

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## Management Controls, Accountability, and Stewardship—Project Phase Sign-offs

### CRS Recommendation

15. The CIO should ensure that the PMs obtain client signatures on the BNA, SOR, UAT, and Release documentation for NPP IM/IT projects. Copies of these sign-offs should be maintained as part of the project documentation.

### Management Action

Agreed. The CIO will communicate the necessity of adhering to the Project Management Framework and that proper client signatures are always obtained. The CIO will communicate the necessity of full compliance. The IM/IT CC will not endorse, approve, or recommend any project for which the required information has not been provided.

**OPI:** CIO

**Target Date:** Completed

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## Management Controls, Accountability, and Stewardship—CDS Delegation of Authorities for NPP IM/IT Expenditures

### CRS Recommendation

16. The CIO should ensure that the PMs obtain the proper authorizations for payment of NPP IM/IT-related invoices. In addition, the CFO should ensure that the NPF accounting staff are aware of the IM/IT authorities and confirm that these invoices are properly approved prior to processing the payment.

### Management Action

Agreed. A number of initiatives are under way to better train individuals assigned responsibilities under the Chief of the Defence Staff Delegation of Authorities for Financial Administration of Non-Public Property. These responsibilities include commitment and contracting authority, payment approval authority, and authority to requisition and/or issue payments. The payment of IM/IT-related invoices will be fully addressed by this training. The training being developed is similar to the Public Expenditure Management Course and will be rolled out in the very near future. As an interim measure, individuals involved with the authority to requisition and/or issue payments (CFO Staff) have been reminded of the specific requirements associated with the approval of IM/IT purchases.

**OPIs:** CIO and CFO

**Target Date:** September 2011

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## Management Controls, Accountability, and Stewardship—Performance Management Regime

### CRS Recommendation

17. The performance measurement regime that is being developed as part of the DGPFSS New Deal initiative should incorporate key IM/IT metrics.

### Management Action

Agreed.

**OPI:** Assoc DG

**Target Date:** 1 April 2012

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## Management Controls, Accountability, and Stewardship—Project Progress Reports

### CRS Recommendation

18. The CIO should ensure that the PMs are provided with specific guidance on the format and content of project progress reports and that these reports are provided to SRB and WG members at least annually.

### Management Action

Agreed. The CIO will direct that a project progress report be developed for large/complex projects and that progress updates be provided for less complex projects.

**OPI:** CIO

**Target Date:** December 2011

## Annex B—Audit Criteria

### Objective

1. Ensure that a proper IM/IT governance structure is in place.

### Criteria

- DGPFS IM/IT goals, objectives, and priorities are achievable and support the DGPFS corporate goals and objectives.
  - The IS Division organization structure effectively supports the achievement of IM/IT goals and objectives.
  - The decision-making process for IM/IT-related matters includes appropriate governing bodies.
  - Appropriate monitoring and reporting tools are in place to provide senior management with timely, accurate, and relevant information for monitoring and decision making purposes.
  - An appropriate policy and procedures development and approval process is in place.
- 

### Objective

2. Determine whether the IS Division has an effective business planning and strategic management process in place.

### Criteria

- There is a formal business planning process in place.
  - IS Division activities are adequately resourced.
  - IS Division resource management is adequate.
  - There is a formal IM/IT capacity planning process in place.
- 

### Objective

3. Ensure that an appropriate risk management framework is in place and that risks are adequately managed.

### Criteria

- Identifiable risks are recognized and understood.
  - Appropriate risk response strategies have been developed.
  - A comprehensive disaster recovery plan is in place, is up-to-date, and has been tested.
  - A formal change management process is in place.
- 



**Objective**

4. Ensure that a formal IM/IT project management framework is in place and is being consistently followed.

**Criteria**

- A formal IM/IT project management framework is in place and is adequate.
  - PMs are consistently using the framework to manage IM/IT projects.
  - An effective IM/IT projects management prioritization process is in place.
  - System and software application development activities are in compliance with applicable processes, procedures, and standards.
  - A sound quality assurance process is in employed.
- 

**Objective**

5. Ensure that appropriate performance measurement tools and procedures are in place to provide management with timely, accurate and relevant information.

**Criteria**

- Appropriate measurement tools and procedures are in place to provide management with timely, accurate, and relevant information.
- The IS Division's performance is measured and monitored by senior management.
- Both financial and non-financial performance measures are used to measure IS Division performance.
- IM/IT project performance is effectively monitored by senior management.