IM and IT HR and Business Plan

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Version 1.0

Canada

Table of Contents

1.   Executive Summary

For the past few years, there has been a buzz throughout the Federal Government warning of an impending "human capacity crisis". Recent surveys on University and College enrollment data demonstrate a serious decline in the field of Computer Engineering, Computer Science and Software Engineering from 2002 to 2005[1] and in Computer Engineering from 2003 to 2007[2]

While many see this as a potential crisis, the changing workforce dynamics actually present a real opportunity to fundamentally rethink the ways in which the federal government recruits quality workers. In keeping with this perspective, Treasury Board's Organizational Readiness Office (ORO) has made the development of an integrated "IM and IT HR and Business Plan" a top priority.

As Federal departments recruit and retain employees, and adhere to the Public Service Employment Act (PSEA) tenant to "*align current and future HR needs with business priorities to ensure skilled resources are available when needed*", the IM and IT HR Business Plan, and accompanying Annex 1: Action Plan, will provide departments with guidance, recommendations and tools to address these challenges.

The development of the HR and Business Plan began with a plenary session hosted by the ORO and attended by government CIOs and senior managers. During this assembly, participants identified six core components of concern for government managers and departments and agreed that the ORO should assume a leadership role in developing a plan that would not only encapsulate the current workforce environment, government transition initiatives and priorities, legislated requirements and employee demographic trends, but would contain a mitigation strategy.

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[1] ICTC Survey University Enrollment April 2005.
[2] ICTC Survey College Enrollment April 2007.

What are the Challenges?

During the development of the IM and IT HR and Business Plan identified the following key findings and challenges:

- ❖ Dramatic drop in college enrollment projected over three years
- ❖ Anticipated shortage of IT and IM resources across government
- ❖ Changing nature of IM and IT role
- ❖ Lack of current IM workforce analysis to support planning of new initiatives
- ❖ Growing demand for formal career progression and transparency and consistency in staffing and recruitment process
- ❖ Increased requirement for combined Business and IM and/or IT technical skills
- ❖ Shortage of Employment Equity (EE) n and Official Languages (OL) representation
- ❖ Growing demand for interdepartmental mobility

Taking Action

The IM and IT Communities will consider a number of strategies and initiatives to address and mitigate the challenges identified, including:

- ❖ Maintain current demographic and workforce analysis
- ❖ Develop and maintain standardized generic products, tools and practices
- ❖ Launch a national advertising and recruitment campaign to highlight jobs available in the federal government and recruit quality candidates
- ❖ Promote awareness and positive attitudes towards IT and IM education and employment within high schools, colleges and universities
- ❖ Identify new and emerging job streams within the IM and IT sectors, e.g. Client Relationship Management
- ❖ Recognize and reward employee innovation
- ❖ Develop employees with leadership potential by expanding their experience base through mobility and new experiences
- ❖ Recruit and develop new IM and IT Public Servants through Professional and Apprenticeship Programs
- ❖ Continue to address concerns identified in Pubic Service Employee surveys
- ❖ Remain open to new ideas, change and opportunity

2. Introduction/Background

2.1 The Vision

The IM and IT HR and Business Plan serves as a key building block in the continuous improvement and development of human capacity within the Government of Canada's (GC) IM and IT communities.

This plan is the driver for current and future community development strategies and is based on key government priorities, including IM Program initiatives, PS Renewal, Shared Services, and Service Delivery, to name a few initiatives that will transform government operations and impact our IM and IT communities. The IM and IT HR and Business Plan, hereinafter referred to as the "Plan", is intended to identify key priority areas, contribute to the support of strategic "people" challenges within government, and assist departments and agencies meet their mandate to develop an annual HR plan.

2.2 Six Pillars of the Plan

In June of 2006, Executives and senior managers from government IM and IT organizations met for a one-day retreat to review key issues that would impact the future of their communities. Using the Canada Public Service Agency (CPSA) (formerly referred to as PSHRMAC) model to integrate HR and business planning, IM and IT executives considered business priorities, challenges, and demands they expect to encounter over the next three years and in the long-term, and the related implications. Demographic data and HR statistics were also taken into consideration.

As a result, six priorities, referred to as *the six pillars*, were identified:

1) Classification Infrastructure

2) External Recruitment and Internal Staffing

3) Learning and Professional Development

4) Workplace Well-being

5) Labour Relations

6) Employment Equity and Official Languages

These priorities will be addressed over the next three years to ensure IM and IT communities have the capacity, competencies, and leadership required to fully contribute to the success of departments and agencies within the GC.

Diagram illustrates the six pillars:

2.3 Phased Approach to Developing and Implementing the Plan

As this document represents the GC's first attempt at developing a government-wide integrated IM and IT HR and Business Plan, stakeholders agreed to adopt a phased approach to its development. This first phase, or Version I of the Plan, establishes the groundwork for future Plans. As such, this and subsequent versions of the Plan should be considered evolving documents, acknowledging and reacting to the ever-changing needs, demands and trends within the IM and IT communities.

Factors that contributed to the ORO's phased approach include the transition of IT infrastructure, resources, technology, and processes into one central delivery service provider; business drivers; technology trends; and the convergence and integration of the IM and IT domains. Another consideration is the issue of how occupational groups within the IM community pose a challenge in obtaining solid IM demographic analysis and the 2006 Public Service Employee Survey results.

As a result, some components of the Plan may contain more goals and supporting strategies than others, and some may represent priorities for one community, but not necessarily for the other.

2.4 Target Audience

The Plan is designed primarily for use by departmental and agency CIOs and DGs in the development of their annual HR Plan. However, the Plan will also assist Treasury Board's CIO Branch (CIOB) determine community needs and priorities that could result in the development of new initiatives and services that support future community and capacity building for the IM and IT communities.

2.5   How to Optimize the Use of the Plan

The goal of the Plan is to ensure common HR practices, products, and services are closely linked and used to the future priorities of the GC and business drivers of IM and IT organizations.

By using the Plan, departments and agencies can identify and implement government-wide initiatives that will improve upon and develop the human capacity of their IM and IT community resources.

The ORO will host information sessions and consultations with senior management on how to optimize the Plan and implement components of Annex 1: Action Plan.

3.   Environmental Overview of Government IM and IT Organizations

3.1. Government Business Priorities and Drivers

3.1.1.   Modernization Initiatives

Over the past decade, there has been an increased focus on the implementation of "*modern management*" practices in the federal government. This trend has resulted in a number of related initiatives being launched with the objective of improving internal management practices; increasing management accountability and transparency in decision-making; improving government services and delivering citizen-centred products and services; shared and common service delivery; and human resources modernization.

A summary of government-wide trends and associated business impacts is noted below.

3.1.1.1. Modern Management Practices and Stewardship

Since 1994, a number of initiatives have been launched in an effort to strengthen stewardship across the public service and to achieve excellence in management practices. These initiatives focus on various aspects of management (*Managing for Results*; *Modern Comptrollership*; the *Integrated Risk Management Framework*; *the Enhanced Management Framework*; *Results for Canadians*; *the Management Accountability Framework, etc.),* primarily on the implementation of changes to the methods and practices used for the management of public funds.

Today, the GC is focused on improving and renewing its suite of policy instruments. This project, named the "Policy Suite Renewal", will result in a streamlined suite of policies, directives, guidelines and standards that provide clear direction and guidance to government managers and will outline the expected management behaviours and consequences. Of particular significance to the IM and IT communities is that Treasury Board recently approved and published a [Policy Framework for Information and Technology](#), in conjunction with the [Policy on Management of Information Technology](#) and the [Policy on Information Management](#). This framework and the new policies will result in a series of new policy instruments being developed and implemented over the next year.

As the trend to modernize management practices across the GC continues, it is expected that there will be:

- An increased requirement for automated management tools and systems, including records and document management tools, business intelligence tools, and integrated products.

- An increase in the requirement for common and/or shared systems and shared services to reduce costs and demonstrate value for investments.

3.1.1.2. Accountability and Transparency

Accountability has become a key topic in the last few years – especially in light of a number of high-profile government scandals. This focus has led to the implementation of several government initiatives targeting improvements in the area of values and ethics; procurement reform (including proactive disclosure); and overall transparency in government decision-making.

In 2003, the government implemented the Management Accountability Framework (MAF), which outlines Treasury Board's expectations of senior public service managers for good public sector management. The MAF reflects many of the management-focussed initiatives currently underway or recently implemented (e.g. results for Canadians, modern comptrollership, human resource modernization) and is structured around 10 key elements that collectively define good management. This framework is also used as the basis to measure departmental performance on an annual basis. As the MAF has evolved, new performance indicators have been developed and added to the structure, with the IM and IT indicators being revised in 2006 and additional revisions planned for coming years.

The most recent initiative related to the accountability trend is the implementation of the Federal Accountability Act (FedAA), which received royal ascent in December 2006. Through this Act and its associated action plan, the GC will bring forward a number of new initiatives and pieces of legislation that will further strengthen accountability and increase transparency and oversight across government operations.

It is expected that the trend towards increased government accountability and transparency will continue into the future. For IM and IT communities, this could result in:

- Procurement delays attributed to increased "red-tape" and a web of procurement regulations;

- A greater demand on IM systems and a greater need for standardized data to ensure that information being reported is accurate. Since IM functions provide the policies, guidelines and tools for which information is handheld, IM will play a key role in how information is created, shared, transmitted and recorded.

- Increased need for a common business intelligence tool set(s) and a standardized approach to information services. Such tools will have to work across government and will support common leadership approaches that focus on accountability.

- Increased requirement for secure products and tools.

3.1.1.3. Service Improvement Initiatives

In 1999 the GC announced the Government On-Line (GOL) initiative, with the aim to make the most commonly used government services available on-line by 2005. By March 2006, over 130 services were available on-line.

In 2000, the Service Improvement Initiative (SII) was launched and mandated that departments seek to improve citizen satisfaction by a minimum of 10% for all publicly delivered services. Also in 2000, the document, Results for Canadians, recognized that the federal government exists to serve Canadians and that an increased *citizen focus* must be built into all government activities, programs and services.

In 2002, GOL and SII were combined to reflect the GC's service agenda that is guided by two key operating principles:

1. "Citizens and business must be at the centre of service delivery. To achieve this, improvements to services must be driven by the service needs and expectations of clients and focus on responding to the priorities for improvement that they have expressed through surveys, focus groups and other feedback mechanisms."

2. "A whole-of-government approach to Service Improvement is essential to drive citizen- or user-centered service delivery. The GC approach is centrally coordinated to achieve progress across the entire government; collaborative across departments and agencies, and across jurisdictions, involving the private and not-for-profit sectors; and transformative by encouraging the re-engineering, consolidation and integration of services where it makes sense."

An important element of this agenda is the effective use of information and communications technology to enhance services and service delivery.

Today, the Treasury Board Secretariat (TBS) is working developing a *Service Policy* that will guide the development and delivery of government services. Additionally, there will be continued focus on the integration of cross-department and cross-government integration of services, including the establishment of partnerships.

As the government continues to strive towards accessible, multi-channel, integrated services, the implications on the IM and IT communities could include:

- An increased requirement for business, information, and application architecture skills.
- An increased requirement for standardized information, information architecture, and the implementation of service-oriented architectures.
- Increasing requirements for secure products and solutions.
- Increased knowledge of government business and citizen needs.

3.1.1.4. Shared and Common Services

Coupled with the previously noted trends is the move towards shared and/or common services. By implementing common and shared services, the government will reduce operating costs while improving overall levels of service to its clients.

In December 2003, the Horizontal Review on [Common Infrastructure and Service Delivery](#) (CISD) reported, "GC expenditures on external service delivery, corporate administrative services (CAS), and information technology (IT) consumed a full third of gross operating expenditures - some $13 Billion annually. It concluded that these activities need to be structured in a client-centric manner with more transparency as to their costs and outcomes, and managed with a view to optimizing the overall value to the taxpayer and service to the client."

Since that time, the Government has begun working towards the development and implementation of two key organizations that will significantly change the way internal services are delivered across government:

- The IT Shared Service Organization (IT-SSO), that will deliver shared and common IT support services to Departments and Agencies; and

- The Corporate Administrative Shared Services Organization (CA-SSO) that will deliver transactional HR, finance and materiel services to government departments and agencies.

In addition to the implementation of shared internal services, the Government has implemented Service Canada, which is mandated with the delivery of externally facing services to citizens on behalf of Departments and Agencies. Service Canada's goal is to provide Canadians with one-stop, personalized service through the delivery channel of choice (telephone, Internet, or in person).

With respect to both the IM and IT Communities, the Shared Services Initiatives will:

- Create a need for greater standardization of services, systems, and tools;

- Require that IM and IT resources have the skills to handle complex, centralized systems and services;

- Require that IM and IT resources not working within the Shared Services Organization put more focus on services that are unique to their department's business functions;

- Create a requirement for an information architecture that facilitates reporting and effectively supports corporate service delivery;

- Create a requirement for systems and tools that allow for the integration of information from a variety of sources; and

- Require a greater understanding of the points of interaction between program delivery and information systems vis-à-vis shared services.

Additionally, this transformation will result in a number of change management issues for the IM and IT communities, as the mandate for departmental support staff changes.

3.1.1.5. Human Resource Modernization

In 2005, the *Public Service Modernization Act* (PSMA) came into effect, resulting in a number of changes to the HR management structure of the public service. This change provides departments and agencies with increased flexibility and strengthened accountability based on transparency, fairness and respect.

Under the HR Modernization umbrella, a number of initiatives are currently planned or underway, including:

- Classification modernization;

- Re-building of the HR capacity across government;

- Improving HR planning and reporting frameworks;

- Implementing HR modernization change management and communication strategies; and

- The implementation of common business processes supported by a single integrated system.

This PSMA will provide IM and IT communities with the flexibility to implement new development programs and government-wide collective staffing initiatives; while the associated modernization activities may impact the IM and IT support structure that is currently in place.

3.1.1.6. Security, Privacy and Data Protection

Since the events of September 11, 2001, the world has become increasingly aware of the physical threats of terrorism in addition to the risk of cyber-terrorism and the impact it could have on the world's computer systems and data banks that control many aspects of our lives. Instances of cyber-crime, including data theft and identity theft have also led to a growing concern about data protection and personal privacy.

As a result of these and other factors, there is a growing requirement for IT professionals to be knowledgeable about security products and services; data protection; and legislation surrounding data such as the Access to Information and Privacy Act (ATIP).

3.1.2   Public Service Renewal

The Clerk of the Privy Council recently reinforced the need for Public Service (PS) Renewal. The Clerk recommended a series of renewal priorities focussed on the following:

- The implementation of recruitment strategies at the post-secondary and senior management levels to fill indeterminate positions;

- Integrated HR and business planning for all departments and agencies. This will be facilitated by the development with improved and simplified planning tools, and the development of a unified public service HR plan;

- Employee development programs including employee learning plans; development programs for functional communities; and improved performance management centred around the *people management* component of the MAF; and

- Enabling Infrastructure that includes streamlined HR business processes and systems across government, best practices, renewed skills and HR community leadership, improved recruitment tools.

These government-wide renewal priorities will also translate into community-based priorities at the IM and IT community level.

3.1.3   Public Service Employee Survey for the CS Community

The Canadian Public Service Agency (CPSA), (then referred to as PSHRMAC), conducted the third Public Service Employee Survey (PSES) from November 2 to December 22, 2005. The response rate for the whole public service was 58.9% with over 106,000 employees responding to the survey. CS employees represented 6% of all survey respondents.

While areas of strength were observed within the CS group (such as workload, staff turnover and work-life balance), areas of concern were also been identified. These include:

- A smaller portion of CS employees felt they are able to get on-the-job coaching to help them improve the way they do their work (58% of CS vs. 65% of PS).

- Fewer CS respondents believed they have opportunities for promotion within their department/agency, given their education, skills and experience (40% of CS vs. 48% of PS).

- A lower portion of CS employees believed competitions were run in a fair manner, based on their experience as a competitive candidate in the past three years (63% of CS vs. 69% of CS).

- Fewer CS employees felt their work unit had clearly defined client service standards (71% of CS vs. 78% of PS).

- Fewer CS respondents reported having good ongoing communication with others in their organization working on similar projects or issues (77% vs. 84% of PS).

- Overall trends and concerns of the IM community are not available due to lack of consistent demographic and population analyses.

3.1.4   University Enrollment in IT-Related Fields

Universities enrollment data in the fields of Computer Engineering, Computer Science and Software Engineering indicate a decline of 11% from 2002 to 2005, but an increase of 17% for foreign students (refer to University Engineering Enrollment Survey: A summary of findings, Software Human Resource Council, April 2005). This trend of declining enrollment in the science sector could lead to increased competition with the private sector for scarce resources. The GC may consider targeting some of its recruiting efforts to attract foreign workers, graduates and foreign students in order to meet external recruitment quotas.

3.2. Departmental Priorities

While the GC establishes its priorities, which are then communicated through the Speech from the Throne, it is the role of Departments and Agencies to align their initiatives to support these priorities and those directives from the Clerk of the Pricy Council.

At the annual GC Executive Summit in June 2007, government CIOs and senior managers assembled to discuss issues common to government and discussed possible options and solutions to address these challenges.

Trends and observations identified at the 2007 Executive Summit include:

- Internal pressures to reduce IT budgets.

- High levels of retirement (a poll done at one workshop and generalized across the public service indicated that approximately 10% or 1500 members of the CS workforce will have to be replaced over the next 3 years).

- Organizational structures are increasingly matrixes compared to past years.

- *Centres of Expertise* are an emerging concept that promotes the need for specialization in specific areas.

- Institutional knowledge is not being adequately transferred to new employees (they must have the historical knowledge upon which legacy systems were built).

- Flexibility in external recruitment is currently greater than with internal promotions.

3.3. The IT Community

3.3.1.   The Workforce

According to findings in the Population Profile and Employment Analysis of the Federal Public Service IT Community published by the ORO in February 2005, CS employees comprise approximately of 84% of the Public Service IT Community. Resources are dispersed amongst the seven IT work streams defined by the ORO: Client Portfolio Management; Planning; Architecture; Security; Infrastructure/ Operations Support, Hardware, Software, Telecommunications; Application Development and Maintenance (50% of resources reside within this stream); and Database and Data Administration. The majority of IT resources are located in the National Capital Region (NCR).

The GC is increasingly recruiting Generation Y workers into its IM and IT workforce. Generation Y is a demographic group generally considered adaptable, able to grasp new

concepts, multi-taskers, technologically savvy, and tolerant. They are one of the most educated generations yet, and love to learn. They do not plan to be at the same location for an extended period, and want to be at the top of the ladder right away.

To effectively recruit and retain these resources, the GC must encourage their values, show appreciation for their individuality and let them be expressive and have input.

3.3.2. Current Skill Base

Today, many IM and IT organizations continue to work in silos rather than across organizational boundaries, or "horizontally". The current profile of a federal government IT resource is mostly that of the specialist, with some generalists and a few *Versatilists*. Gartner defines versatilist as individuals who apply depth of skill to a rich scope of situations and experiences, building new alliances, perspectives, competencies and roles. The emerging roles of versatilists reflect emerging requirements for:

- Increased client focus;
- Enhanced understanding of business needs and the ability to hold strategic business conversations;
- Global rather than linear thinking;
- Optimal and innovative use of existing systems and off-the-shelf solutions rather than an engineering-driven mindset focused primarily on the creation of new IT systems; and,
- Increased exposure to multiple client environments from which to learn different approaches.

3.3.3. Statistical Data

The Workforce Analysis that follows is based on documents and studies developed on behalf of ORO and include the [Population Profile and Employment Analysis of the Federal Public Service IT Community](#) published by in February 2005.

3.3.4. Age Characteristics and Retirement Trends

Although CS employees tend to be younger than other Public Service (PS) employees at equivalent levels, the current rate of attrition through retirement is slightly higher than average. Additionally, the demand for CS resources was 6.38% for the period of 2001-2006, double the rate of all other PS occupations combined. Assuming a continuing trend, external recruitment efforts will have to increase to meet the demand, within an environment that will remain highly competitive.

3.3.5. Employment Equity and Official Languages

Employment Equity data shows a significant shortfall in the representation of visible minorities within the CS group. It also has a lower-than-average representation of women within its ranks (33% vs. 55% for other public servants).

The CS-01 and CS-02 feeder pool of candidates for bilingual positions is smaller than the number of staffed bilingual positions at that level. In addition, finding qualified and competent IT employees in both official languages to serve across all bilingual regions of Canada for language-of-work purposes, particularly at more senior level positions, is also proving to be a challenge. At the CS-05 level, 68% of positions are bilingual while 33% of incumbents do not meet the language requirements of their positions. At the CS-04 level, 81% of positions are bilingual which 34% of incumbents do not meet the language requirements of their positions.

The impact of Official Language on staffing is that the stated requirement for bilingual CS resources exceeds the current supply. Departments should address this shortage, which shows no sign of abating in the short or long-term, through external recruitment efforts and language training for employees who do not meet the linguistic profile of their position.

3.3.6. Employee Mobility

Based on findings in the [Population Profile and Employment Analysis of the Federal Public Service IT Community](#), almost 78% of all CS employees in the federal government have worked for the same department/ agency for their entire career. While this percentage decreases in higher levels, 56% of all CS-04s and 40% of CS-05s have never worked for more than one department.

Through the implementation of standardized Organizational Models, pre-classified Generic Work Descriptions, government-wide collective recruitment and staffing initiatives, Professional Development and Apprenticeship Program (PDAP), and Leadership Development programs, employees will be able to move from one department to another with greater ease as there will be little need to develop and classify new work descriptions, and CS work descriptions will remain consistent across government.

3.4. The IM Community

3.4.1. The Workforce

The IM Community extends across several Occupational Groups, including: the Administrative (AS) group, the Computer Systems (CS) group, Historical Research (HR) group, Clerical and Regulatory (CR) group, Library Science (LS) group and Social Science Services (SI) group. Well over half of all IM Community employees are concentrated in two broad IM functional domains: Information Systems Analysts and Consultants, and Records Management & Filing Clerks. When employees of the CS Group are excluded from the IM Community, Records Management & Filing Clerks and Supervisors, Library, Correspondence and Related Information Clerks make up 60% of the IM Community.

Within the IM Community, the concentration in the NCR is highly variable depending on the occupational group. With more than 80% of all HR, SI and LS Group employees concentrated in the NCR, there are relatively few career opportunities for librarians,

archivists and social science support officers that offer the opportunity for significant upward mobility within their profession for individuals working in the regions.

Implementation of a public service wide HR and Business Plan will set IM job standards across government and increase assignment opportunities across regions, both of which will act to equalize career advancement opportunities for all IM workers.

Similar to the IT community, the IM Community recognizes the need to develop new skill sets and abilities centered on integrating sound IM practices into the business of the Government, consistently and efficiently. The implementation of a public service wide IT and IM HR management plan will ensure that the work required to identify, develop, and ensure the availability of these required skills will be undertaken in a coordinated manner that builds on and respects the diversity of the existing IM workforce.

3.4.2. Statistical Data

The Workforce Analysis that follows is based on documents and studies developed on behalf of ORO, including the [Population Profile and Employment Analysis of the Federal Public Service IT Community](). As previously noted herein, there are significant challenges to producing reliable demographic statistics specific to the IM Community, due to the diverse nature of the community.

3.4.3. Age Characteristics and Retirement Trends

Consistent with the general CS population, CS employees in the IM community tend to be younger than the general public service population, with less than one employee in six eligible to retire without actuarial penalty within the next five years. This is noticeably less than the projected retirement trend of one in four for the rest of the public service.

For occupational groups in the IM Community that are not in the CS occupational group, 31% of all IM employees are aged 50 and over compared to 33% for all public servants. IM managers and professionals dedicated to the more traditional IM functions are significantly closer to retirement, on average, than the remainder of the IM community workforce. A significantly higher-than-average percentage of LS and HR group employees (about half) are aged 50 or more resulting in almost 1 in 3 in the LS and HR groups combined eligible to retire without actuarial penalty in the next five years.

Consistent with identified needs for renewal across the federal civil service, initiatives that lead to external recruitment of new IM professionals are essential to ensure the ongoing viability of the IM community.

3.4.4. Employment Equity and Official Languages

Employment Equity (EE) data for the IM Community is not readily available. In ORO documents, it is reported that in the IM Community, representation of women within the IM workforce varies significantly by occupation. For instance, less than 30% of all IM CS employees are women, compared with 74% within the LS group. Overall, approximately 49% of all IM employees are women, versus 53% of all other public servants.

In the IM Community, 48% of all IM community positions were designated bilingual compared to 37% of positions in the public service. Almost 27% of all IM community employees occupying bilingual positions do not meet the second language requirements of their position. This percentage varies considerably by occupational group, reaching 33% within the HR group. This data suggests that the staffing of bilingual IM Community positions will require a greater commitment to language training early on in an IM employee's career when the opportunity costs associated with language training are relatively lower.

3.4.5. Employee Mobility

Based on findings in the [Population Profile and Employment Analysis of the Federal Public Service IT Community](#), approximately 70% of all IM Community employees (both CS and the other occupation groups) have only worked for one department/ agency. Through the adoption of an enterprise-wide, IT and IM HR management framework that emphasizes employee adaptability, training and developmental programs, cross-organization assignments as well as the use of pre-qualified pools could potentially increase interdepartmental mobility among federal government IM and IT workers.

3.4.6. Vacancy Rates

Demographic analysis conducted by ORO in 2005 indicated high vacancy rates in the IM Community. Due to the wide range of occupations and the associated merit criteria etc., staffing these positions, both internally and externally, is challenging.

3.4.7. Acting Assignments

In the IM Community, the percentage of long-term acting situations varies considerably by group, and is more prevalent within the Library, Archive and Museum Management occupations, and Web Design and Development positions. On average, 7% of the IM workforce was in a long-term acting situation as of September 30, 2004. The incidence of long-term acting situations for IM employees also varies considerably by occupational group, ranging from 1% within the HR Group, to 17% within the PM Group.

4. The IM and IT Organization of the Future

To support the changing nature of how IM and IT services are delivered to business and clients, IM and IT organizations must ensure the development of horizontal skills, in addition to the more vertical technical roles traditionally found within their organizations.

Many IM and IT organizations work in silos rather than across organizational boundaries. An integrated IM and IT culture promotes working with the program, suppliers, partners and clients. To build horizontality, CIOs must cultivate a new IM and IT culture.

As stated in April 2006 by Jim Alexander, Deputy CIO of Treasury Board Secretariat, in a presentation entitled Strategic Priorities of the Federal CIO, key CIO priorities and challenges include, "Leading the Development of the IM and IT Workplace and Workforce; and to develop/ acquire capacity for more consistent successes; and retaining, attracting and developing IM and IT talent within the Federal Government". By developing and implementing standardized government-wide products, services and initiatives, IM and IT communities will help address these issues and optimize their capacity.

The observations and recommendations following are assumptions based on ORO's knowledge of IM and IT organizations and their community resources, and the trend to integrate IM and IT organizations within government. Based on senior management consultations, working groups, steering committees, interviews, surveys, and focus groups, the ORO has identified gaps and requirements specific to the development of IM and IT communities as a whole, and of the resources within these communities.

4.1. Knowledge and Skills Required for IM and IT Organizations of the Future:

#### 4.1.1. Changing Nature of IM and IT Services:

Developing horizontal skills across IM and IT will accelerate the organizations' transition from technology-driven to business-driven. To build horizontality in IM and IT organizations, CIOs can support a new IM and IT culture by developing the following knowledge and skill base:

- Business enablement: developing and implementing solutions;

- Business process management: designing and implementing business processes and systems that efficiently create value;

- Change advocacy: planning and gaining buy-in for new ways of doing things and new solutions that create competitive differentiation;

- Innovation: improving organizational performance by thinking originally about existing and emerging methods, processes, products and services;

- Project delivery: scoping projects with business value and lead cross-business and contractor teams to achieve project objectives;

- Service orientation: agreeing and monitoring service solutions that meet criteria of business needs, cost and risks; and

- Teamwork: provide collaborative support to colleagues to achieve a common goal.

4.1.2. Addressing Government Drivers and Priorities:

Key government drivers and priorities will have an impact on the type of skills and knowledge that will be required from the IM and IT Communities. The following skills will be required:

- IM architecture and Business architecture to address growing requirements for systems and service integration and address multiple needs: service improvement; modernization; accountability; shared services; etc.

- Knowledge of department and government priorities. Also with accountability and integration trends, resources will need to know cross-govt priorities in order to better select integration methods, and re-use.

- Service oriented resources to address the service needs and client expectations. Based on the *Public Service Value Chain*, strong internal and external services contribute to confidence in the public service.
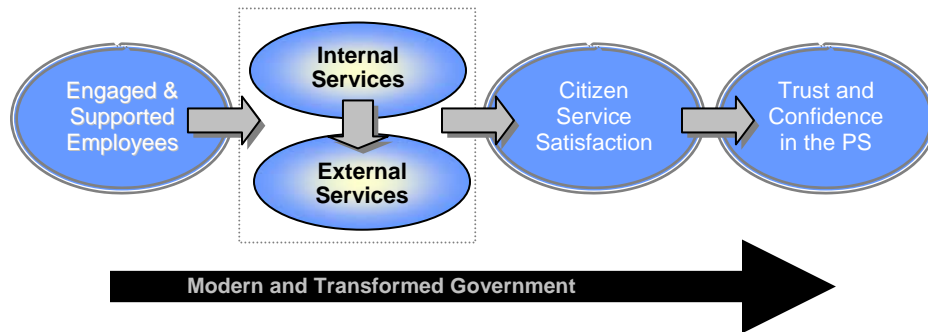
- Knowledge and understanding of existing and newly established policies.

- The ability to develop and maintain partnerships.

- The capacity to manage cross-generational workforce with the arrival of generation Y in IM and IT organizations.

4.2. Changing the Cultural Mindset

The challenge of shifting or changing any long-established cultural mindset is the role of communications and change management. Employees, as a whole, resist change and are naturally reluctant or suspicious of its intentions. Although changing the GC mindset to a service-oriented organization is a key element in establishing a horizontal culture, the results should be focused on the mid to long term.

This change will ultimately provide a means for the GC to measure IM and IT success according to its contribution to enterprise growth and effectiveness, and establish a dramatic shift from the inward and day-to-day transactional concentration that is currently the focus.

4.3. Transitioning to Shared Services

Shared Services is defined as the consolidation of common corporate administrative systems and functions amongst departments and agencies to improve efficiency, effectiveness and lower the cost of service delivery. The initial areas of focus for shared services within the GC are transactional human resources, financial, materiel services, and IT services. The Government's stated goal is to provide services that are client focused (efficient, self-service); streamlined using standardized business processes and information; and managed through common systems and new delivery models.

For the past 7 years, IM and IT organizations have been gradually preparing for a model like that being developed by the IT Shared Services Organization (IT-SSO). Departments and agencies have been maturing their operational processes to manage the IM and IT infrastructures enabling them to migrate to an In-sourced or Outsourced model, as the need require. This model assumes an informed buyer on the inside participating with its suppliers through a process of constructive tension.

Conversely, the scope and impact of Corporate Administrative Shared Services Organization (CA-SSO) is not clearly understood throughout the IM and IT communities, and as a result, the ORO and departments/agencies are unable to anticipate employee needs resulting from the transition, and plan accordingly.

4.3.1. How Shared Services will impact IM and IT Resources

The ITSSO is in the process of transitioning IT infrastructure, resources, technology and processes into one central delivery service provider. Once IT SSO begins functioning as an operational unit, the majority of lower-level CS employees (i.e., CS 01 to CS 03,) who work in data centres, distributed computing, help desk services, network management, and infrastructure protection will work primarily through the IT SSO. This will change reporting relationships and remove CS workers from the business lines of a specific department/organization. Until the model is finalized and launched, GC organizations will maintain individual IT and IM functions and operations.

The role of the CIO's organization will need to respond to the IT SSO initiative or other In-sourced or Outsourced partnerships. This change will see the CIO sitting at the management table, managing a smaller workforce that is comprised of IM and IT resources, but also business resources with an understanding of IM and IT.

It is expected that senior CS employees (CS 04 and CS 05) and executives will continue in their respective organizations. IM and IT functions that remain in departments will be more closely related to the business of the organization. For example, it is expected that IM and IT, strategic planning, project management, mandate driven corporate systems design and development, development and management of the business and information architecture, and the provision of business knowledgeable client service for infrastructure will remain under the direction of the departmental or agency CIO.

As the majority of resources to be transitioned will be CS (IT), the impact of IT SSO on the existing IM workforce is not readily apparent. The refocusing of IT resources that remain in departments, and the recognized need for both IM and IT to develop skills to identify, develop and implement streamlined solutions for the management of information and technology, does suggest that it could result in a closer alignment of the IM and IT communities in departments. HR planning and community development initiatives should consider, as much as possible, the alignment of these functions, while respecting the needs of both communities.

4.3.2. Addressing the Gap between Supply and Demand

Gartner speaks to the assumption that over the next few years, leading-edge organizations will have switched the profile of their IM and IT community from the current emphasis on specialists to a broader profile they call *versatilists*. The drivers in federal government suggest that a similar model will apply to IM and IT public sector organizations. The GC Shared Services initiative will result in the transfer of a large number of specialist resources to an IT-SSO. Resources remaining in a department will assume an increasing role as a generalist and versatilist, and will need to develop broad competencies outside the technical realm.

Limitations inherent to the role of specialist have been identified by government business leaders as possible impediments to meeting their IM and IT needs in a timely fashion. The competencies and qualifications required of the IM and IT resource of the future include:

- Strong client focus
- Ability to identify clients' IM and IT business needs
- Treating information as an organizational asset
- Translating business needs into IM and IT solutions, and guiding or managing their integration into the business of government.
- Entering into partnerships with client groups, other providers and outside stakeholders to respond to specific needs
- Strategic thinking abilities
    - Horizontal mindset
    - Facilitation skills
    - Integrate strategic thinking at multiple levels (branch, departmental and government-wide)
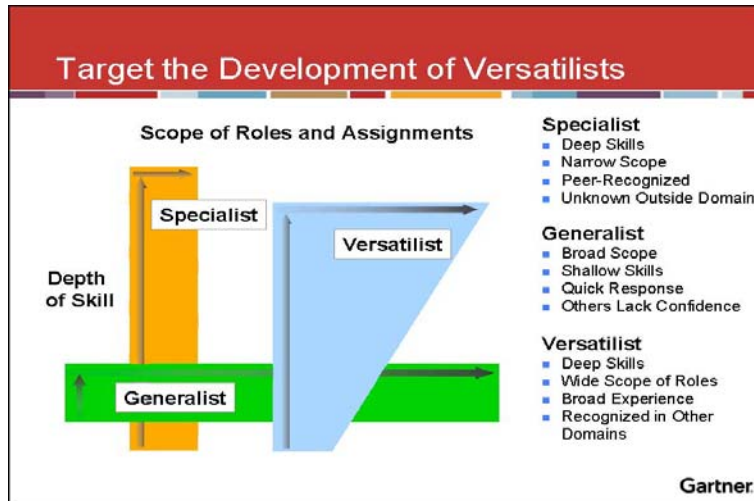
4.3.3. Change Management and HR Support During Transition

The shift to a different profile and corporate culture implies changes to the processes required to recruit, develop, promote and retain resources in IM and IT organizations across government. Change Management (CM) initiatives and strong HR support during this transition will be a key component to success, with CPSA playing a lead key role in the delivery of strategic CM and HR support.

As the GC moves toward a shared services model, it is crucial to include the most recent transition plan from IT SSO in future versions of the IM and IT HR and Business Plan.

5.   Planning for Future IM and IT Organizations

Based on the six pillars identified as key the key HR priorities, the ORO has identified current and proposed initiatives to support the business needs and address resource gaps within the IM and IT communities.

The first critical step in developing any successful plan is to compile in-depth knowledge and understanding of your client – in this case, the communities. As stated in section 3.3, the ORO conducted a [Population Profile and Employment Analysis of the Federal Public Service IT Community](#) from which a number of current products and services were derived.

To date, all attempts to conduct a detailed analysis of the IM Community have presented significant challenges to the collection of current and accurate data. While IM remains a responsibility shared by employees who work in a variety of classification categories, and do not share a common view as to their role or inclusion in the IM Community, the development of solid statistical data on the composition and related needs of the community will remain a challenge. Therefore, while approaches to a more substantial survey or census of the community should be considered, the focus on initiatives that bring clarity to the definition of IM and the relationships of its sub-disciplines is reasonable. The CPSA led GC Government Employee Survey may provide an opportunity to complement existing demographic data, by allowing IM workers to self-identify in the next iteration (2008).

5.1   Classification Infrastructure

5.1.1   IT Community Generics

In support of the IT Community, ORO has taken a leadership role in developing a behavioural and technical competency dictionary, standardized organizational models, generic work descriptions and job competency profiles, for large, medium, small and the regional component of IT organizations, referred to collectively as IT Community Generics.

Implementation of IT Community Generics brings transparency and consistency to the staffing process with generic work descriptions and to professional development and career development with Job Competency Profiles.

The ORO is currently exploring all options to manage and maintain the IT Community Generics over the long term, and support departmental implementation through training, marketing, and communications.

Products developed under the IT Community Generics umbrella support the future state of shared services and the classification needs identified as one of the 6-pillars of the Plan and is linked to with career development.

5.1.2   IM Generic Work Descriptions and Standardized Organizational Models

The development of generic work descriptions and organizational models is another means of supporting the identification and alignment of the skills and abilities required across the GC to ensure sound IM practices. While work descriptions are being developed

for specific IM streams (e.g., records and document management), the related work on developing IM organizational models provides required context for understanding the relationship between these various disciplines. IM Generic work descriptions will support collective staffing initiatives to be developed over the 2008-09 fiscal year

5.1.3   Standardized Competencies for the Federal IM Community

The competencies associated with this Standard will provide the GC with an overarching framework for describing the skills and other attributes required by all IM functional specialists across all IM disciplines. Rather than identifying the myriad of specific skills required to function within the IM sub-disciplines, the competencies focus on the skill and other attributes that support the identification of business requirements for IM, and the design and implementation of the solutions required to ensure sound IM practices are in place in departments and agencies. Following completion of the standard and the related IM Certification program, the existing competency assessment tools supported by ORO will need to be updated to provide employees and managers with tools to develop career and training plans.

5.2   External Recruitment and Internal Staffing

5.2.1   Collective Staffing

Recognizing the challenges associated with staffing, the ORO has begun a series of government-wide staffing processes[3]. The objective is to establish qualified pools through national, collective staffing activities from which organizations can draw and staff positions. Strong, community-focussed staffing will prove to be efficient and effective throughout government, and should be maintained based on a continuous need.

Additionally, the community has also identified the need for shared recruitment and staffing plans, and common assessment tools to facilitate the assessment process. To support the Community, the ORO will:

- Implement Government-wide staffing activities to establish essentially qualified pools to address staffing requirements for IT requirements.

- Develop and implement an IT Competency Assessment Centre.

- Develop and implement an IT staffing and recruitment strategy

Collective staffing efforts will support the achievement of HR Modernization for the IM and IT Communities. In the short to medium term, there will be an increased efficiency by using the government-wide IT Assessment Centre. ORO will seek a mandate to lead all collective staffing initiatives on behalf of the IT community across the GC. This will result in savings: time, money and people, with the use of standardized practices and central services for collective staffing and career progression. In the long term, there will be an eventual elimination of annual assessments unique to organizations and staffing processes within departments.

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[3] A CS-05 staffing process was completed in the summer of 2007; a CS-01 post-secondary recruitment campaign will launch in the fall of 2007, and a CS-04 process is planned for the winter of 07/08.

5.2.2   Professional Development Apprenticeship Program

The IT Professional Development Apprenticeship Program (PDAP) currently under development will attract entry-level CS employees from external and internal sources through government-wide collective staffing initiatives and post-secondary recruitment strategies. In addition, the PDAP initiative will promote existing and new recruits from junior to intermediate levels (CS 01 to CS 03) using a competency-based approach (based on competencies outlined in the Behavioural Competency Dictionary), and eliminate the need to conduct time and resource intensive competitive processes. A pool of resources will be available as a cost effective and timely solution to meeting departmental IT and business needs while assisting resources in their career progression and development. This program will address some of the ongoing staffing requirements at the entry and working levels.

Recruitment and staffing efforts will enhance the achievement of HR Modernization by providing transparent and consistent staffing and career progression within the framework and values of the PSEA. Programs will contribute to Employment Equity (EE) goals by promoting program participation to EE designated groups, and by providing strategic and accurate selection and development based on competencies, and systematic and rigorous assessment, the IM and IT Communities will benefit from a more equitable process for staff progression and development, and staff motivation. PDAP will support the goal to improve retention, increase mobility in the IT Community and across government, and promote an exchange of skills and experience as a result of our external recruitment efforts.

In the short to medium term, there will be efficiency gains through time and resource savings. In the long term, there will be further gains through the eventual elimination of individual staffing processes for CS 01 to CS 03 within departments.

As the PDAP this initiative supports the Public Service Modernization Act (PSMA), implementation through the use of government wide collective processes, it is in the best interest of the public service to develop a government-wide PDAP and thereby eliminate the need for departments to create their own professional development and recruitment programs. The ORO plans to develop and implement a PDAP on behalf of the IT community across government, to meet the critical requirement for junior personnel that possess the right skills in the context of change transformation initiatives and to develop them to their full potential.

Professional development programs have also been identified as one of the key priorities of PS Renewal.

5.3   Learning and Professional Development

5.3.1   Management Development Programs

It is recommended that the GC actively promote and implement Management Development programs for the IT and IM communities to address the following needs:

- Develop employees with leadership potential in line with IT SSO, future trends and Gartner's versatilist model to meet these future requirements.

- Align with the Clerk of the Privy Council's announcement that the establishment of development programs for functional communities is a government priority (see section 3.1.2),

- The IM and IT communities have identified Learning & Professional Development as one of the 6 pillars of this plan.

- The growing demand for interdepartmental mobility (see section 3.5). The use of management development programs would encourage employees to obtain new experiences, thus, broadening the knowledge base of the IT community.

5.3.2 IM Certification Program

The IM Certification Program is being developed to provide a means of assessing and officially recognizing the extent to which IM Functional Specialists are able to demonstrate the competencies associated with the IM Standard noted above. As with the Standard and the Professional Development Curriculum, the focus will be on determining individuals' abilities to identify business requirements for IM and develop and implement the solutions that meet these needs.

5.3.3 IM Professional Development Curriculum

The IM Professional Development Curriculum provides all GC functional specialists with core learning to develop the competencies required to carry out the functions associated with the Standard, as noted above. While the curriculum of seven CSPS courses is fully operational, work has begun to ensure course content and the approach remains valid and useful in light of new policies and directives for IM and recordkeeping.

5.4 Workplace Wellbeing

One important element to consider in the area of workplace wellbeing is the Public Service Employee Survey (PSES) as it identifies the level of satisfaction in the workplace on the following factors:

- Work environment
- Communication with the immediate supervisor
- Work carried out in the work unit
- CS skill and career development
- Harassment and Discrimination
- Staffing
- Service to Clients
- Departure intentions

As noted in Section 3.1.3, *Public Service Employee Survey for the CS Community*, the CS group results were generally comparable to the results for the rest of the public service. As well, results from 2005 for the CS community were usually consistent with the results uncovered in the 2002 survey. Goals and activities identified to address the issues in gaps in the CS

community workforce are outlined in Annex 1, *Human Resource Management Goals and Strategies.*

5.5   Labour Relations

According to results of the Public Service Employee Survey (PSES), an important element to consider when developing an HR and Business Plan is the area of Labour Relations. As indicated in section 5.4, areas of concerns need to be addressed to enhance and maintain a healthy relationship and partnership with the Unions.

The ORO will support the role of the Public Service Labour Relations Act in the Public Service Modernization Act (PSMA) mandate to:

- Facilitate hiring the right people;
- Promote more collaborative labour-management relations;
- Focus on learning and training for employees at all levels; and
- Clarify roles and accountabilities.

5.6   Employment Equity and Official Languages

5.6.1   Employment Equity

As outlined in the demographic analysis in Section 3.5, the IT community has identified gaps in the representation of visible minority employees in the CS classification; therefore the GC should seek to identify this requirement under organizational needs when conduction staffing and recruitment strategies.

Since reliable employment equity (EE) data is not currently available for the IM and IT Community, ORO recommends that a detailed analysis of HR data across organizations be developed to clearly understand what EE imbalances must be addressed. See Annex 1, *Human Resource management Goals and Strategies* for details.

5.6.2   Official Languages

The demographic analysis outlined in Section 3.5 identified a gap in bilingual employees at all levels, with a significant number of employees at the CS-05 level that do not meet the language requirements of their positions. It is recommended that:

- IM and IT employees requiring second language training to meet the Official Languages (OL) requirements of their positions receive appropriate language training.
- IM and IT employees identified as having the potential to move into senior positions receive language training while these individuals are still in junior positions in order to lower OL training costs.
- External and internal recruitment activities identify OL requirements as essential criteria.

- Managers should encourage the use of a bilingual work environment at all times.

6. Next Steps

6.1. Role of ORO, Departments and Agencies

The Action Plan: The Goals and Strategies document attached in Annex 1 illustrates the current and future roles and responsibilities, timelines and activities required to develop a functional HR and Business Plan. The ORO and IM and IT communities within departments and agencies play a key role in the development and implementation of a plan that will address business needs, industry trends, resource gaps, and government priorities.

6.2 Evergreen Strategy

To ensure the long-term integrity and value of the Plan, and according to best management practices, the ORO will continue to review and refresh the Plan and associated demographic analysis at intervals agreed to by the Steering Committee. This will support the PSEA's mandate that deputy heads and managers must develop an internal HR plan on an annual basis.