March **2009**

"A number of agencies are in violation of federal law for how they are supposed to be managing human capital..."



For Government:

Leadership and New Technology <u>Can</u> Solve Chronic Talent Management Illnesses

The government lags far behind the private sector in addressing talent management challenges at a time when these challenges can be cost effectively mitigated with new technology and savvy leadership. Therefore, this paper makes practical recommendations for leveraging state of the industry TM technology and human capital best practices. To do this, the paper summarizes current federal government TM practices and challenges, explains how it got here, reviews the government's current use of TM technology, examines important trends in the TM software industry, and recommends how the federal government can leverage technology to effectively address its TM challenges.

"Government agencies fall short in managing talent and sustaining change..."

- IBM Human Capital Institute 2009

Larry Mercier Knowledge Engineering & Associates March 1, 2009



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Executive Summary

This paper diagnoses what ails government talent management (TM), how government TM got into this predicament, and identifies technology strategies foundational to its rehabilitation. It provides background on government's current use of TM technology, explains important trends in the TM software industry, and prescribes treatment for TM technical infrastructure weaknesses across government. The paper concludes with recommendations for how the agencies can implement leadership and cost efficient technology

"Government Agencies are significantly less likely to practice enlightened talent management than the private sector"

IBM TM Report - 2009

strategies that can make immediate and substantial improvements.

Perfect Storm of Challenges. The federal government's ability to effectively deal with the severe challenges facing the nation depends largely on good execution by a first-rate workforce. Yet by most measures, the federal workforce appears less ready to meet these challenges than at any time in recent history. The retirement wave of boomers is far more severe in government than the private sector because of the reduction in force policies of the 1990's. As a result many agencies do not have career ladders for mission critical

occupations, since the bottom half of the career ladder has been cut off by the RIFs of the 1990's. Not only do these positions no longer exist, the infrastructure for grooming future technical and management leaders is either non-existent or far behind the talent management initiatives and technology used in the private sector. Even more troublesome is that little if any serious activity to transform the federal workforce is being accomplished. The seriousness of this situation cannot be overstated; a recent study by the IBM Human Capital Institute Report states, "We believe that this situation could result in public-sector agencies having difficulty in both fulfilling their existing missions and providing for the educational, medical and social needs of the future private-sector workforce. Both of these issues threaten the prosperity of those nations that fail to overcome them." Perhaps this should not be surprising in a system in which there is little accountability for getting real results; in fact many agencies are in violation of federal law which requires that mission critical competencies be identified and gaps in these competencies be measured and closed. Yet no one has been fired or even reprimanded for allowing this condition to exist. Requirements are contained in the Clinger Cohen Act, the Chief Human Capital (CHCO) Act and the Federal Workforce Revitalization Act.

Current State of Government TM Technology - How We Got Here. By the beginning of 2009, at least parts of the 15 cabinet level departments are implementing some form of an enterprise learning management system (LMS), many of which have extensive talent management capabilities. A number of agencies, such as IRS, USDA and FAA, have done extremely well with these LMS/TM implementations, achieving excellent return for the taxpayers' investments. However, even after several years of planning and implementing, well over

¹ IBM Human Capital Institute Report - *Tim Ringo, Allan Schweyer, Michael DeMarco, Ross Jones and Eric Lesser 2009*

half of the agencies are still in the very early stages of implementation. This slow implementation has caused a significant lost opportunity cost in the agencies ability to identify talent gaps and efficiently manage employee development. This is in part due to the fact that the agencies do not have the skilled workforce to operate the types of technology they selected.

eTraining Service Providers & LMS. Most all of the LMS technology the agencies use today was implemented by OPM's eTraining service providers, under the eGovernment Initiative. The most active eTraining service provider was GoLearn, which provided procurement, project management, implementation services, security, and in some cases operational support. All of the GoLearn implementations used an outsourced, ASP service model, with GoLearn filling in the gaps between what the vendors provide and what the agencies were able to provide.

HR Line Of Business (HRLOB). In May 2004, OPM launched the HRLOB initiative, which was supposed to provide a reference model by which the agencies could collaborate to unify and simplify back office infrastructure for all aspects of the transactional and strategic human capital management. Five Government-wide Shared Service Centers were selected to support multiple agencies in HR management and back office activities. Most of these SSCs had been delivering HR services to multiple agencies for over ten (10) years, and are not actually doing anything different than they did prior to the HRLOB initiative, despite 6 years of implementation, millions of dollars in contracting and consulting services and the investment of tens of thousands of senior government manager FTE hours. Additionally, many agencies are literally "waiting for the SSCs" to provide them with the tools they need for the strategic management of human capital. So far this has been a 6 year waiting – and counting.

State of the TM Technology Industry. The TM technology industry has significantly matured in the past three years. A number of applications offer a full range of talent management services, although the industry is still (rapidly) maturing. Most significantly, a number of leading LMS providers have added a breadth of talent management capability, others have added a depth of learning functionality and tools; a very small, elite group of vendors have successfully added both. Two distinct strategies for adding these capabilities have appeared in the LMS industry: some are building it themselves, while others are partnering with best of breed providers. However, we feel government clients should be wary of TM solutions that have been cobbled together with a number of point solutions, since we have found that these solutions often have only a "sales demo" level of integration.

Transactional HR vs Strategic HC Management. Some vendors that traditionally provide transactional HR software are attempting to add LMS and TM capabilities. We believe it is a mistake to try an aggregate transactional HR functions and strategic HC functions into one system for a couple reasons: (1) there is very little integration required between transactional data functions and strategic data functions and the integration that is needed has already been accomplished. Transactional functions compared to strategic HC functions are so different that the service processes, organization structure and concept of operations should not be consolidated.

The Solution: Software-as-a-Service (SaaS) for LMS / TM Applications. Probably the most significant development in the LMS/TM industry impacting government is the maturing of SaaS in the LMS industry. There are essentially two software delivery and business models (1) licensed, which can be behind the agencies firewall, or with the hosting outsourced which is usually referred to as an application Solution Provider (ASP) model; (2) A SaaS model, in which there is essentially one line of code used by all clients which has deep and broad functionality and the vendor provides the implementation, maintenance, upgrades and

much of the operational support seamlessly to the client. This model is so successful in achieving high customer satisfaction and a superior financial model for both clients and vendors that it has attracted heavy investment and backing from Wall Street. As a result, in 2008, about 85% of all LMS / TM implementations in the commercial sector are now SaaS implementations.

True SaaS - What to Look For. Because of the commercial success of the SaaS model, many LMS vendors that traditionally provide licensed solutions are scrambling to provide SaaS offerings. But the SaaS service and cost models are so different from the traditional licensed software that the fundamental development, delivery, maintenance, upgrade and operations processes have little common. Therefore, the organizational structure and even the culture of a traditional ASP provider could not be more different than a SaaS provider. This explains why ASP vendors are struggling to convert to SaaS, with limited success. Therefore, agencies should be wary of vendors that offer both ASP and SaaS solutions. From a customer perspective the key thing to look for is customer satisfaction – true SaaS providers have very high levels of customer satisfaction, and the cost models are usually much lower than traditional ASP licensing. Another indicator is the frequency of upgrades; traditional ASP upgrades are slow, expensive and risky.

Call to Action. It is imperative immediate action to improve to the management of government talent:

Accountability with Consequences. Hold agencies accountable for achieving specific goals for improvements in talent management, with real consequences for falling short. As a starting point, require agencies to immediately assess their compliance with the federal laws which specify minimum requirements for how government talent is supposed to be managed.

Appoint a chief technology human capital technology officer, who has profound insight and understanding of both the management and technical issues facing the government and solid understanding of the industry.

Follow Private Sector Lead for LMS/TM SaaS Business Model. Charter competing fee for service government organizations to provide true SaaS. Channel additional staff and resources to get the hiring process and other key TM processes right.

Revamp (or eliminate) the HR Line of Business Reference Model (HRLOBRM) – the current model leads agencies in the wrong direction for the management of human capital.

Keep SSCs Focused on Transactional HR. The SSCs have their hands full improving the management of transactional HR and technical perspective, there is little if any reason why these transactional and strategic functions should be integrated. Rather, there are plenty of reasons why these functions should be delivered separately.

Introduction

This paper diagnoses what ails government talent management, how it got to this predicament, and identifies technology strategies foundational to its rehabilitation. It prescribes treatment for the talent management technical infrastructure weaknesses across government, and provides recommendations for how the agencies can implement leadership and cost efficient technology strategies that can make immediate and substantial improvements.

Serious challenges face our government at a time when it is not as prepared as it should be to meet them. The government lags far behind the private sector in addressing talent management challenges at a time when its talent challenges are greater than ever.

This paper makes practical recommendations for leveraging TM information technology. To do this, the paper summarizes current federal government TM practices and challenges, reviews the government's current use of TM technology, examines important trends in the TM software industry, and then concludes with recommendations on how to take advantage of technology to address these challenges.

The "Perfect Storm" of TM Challenges

Everyone in HR is talking about the retirement and leadership vacuum issues they face, but in government the situation is far worse. Government's lack of response to the challenge has created a "perfect storm," exacerbating the challenges posed by the retirement demographics trends by continuing ineffective TM practices and failing to use current TM information technology solutions.



Figure 1 - Transactional HR versus Strategic HC

Government workforce demographics exacerbated by Federal HR policy.

By all accounts, our government is facing severe workforce demographic challenges. But by almost any human resource (HR) measure, the government is far less capable of meeting these challenges than it should be in spite of years of discussion about the critical loss of leadership and management talent, mission critical competency gaps, and the looming loss of corporate knowledge. Moreover, while business employers across the nation have been dealing with the challenges of the boomer retirement wave, the situation has grown more severe in government because of the reduction in force policies of the 1990's. Essentially, hundreds of thousands of government jobs were cut through a "last in, first out" reduction in force (RIF) policy (rather than

merit or agency need). The situation in government is marked by a number critical issues:

Talent Management Definition

There are a number of talent management (TM) definitions, but the most useful are those that clearly separate transactional human Resource (HR) functions from human Capital (HC) strategic management functions.

Therefore, Figure 1 provides a helpful definition of what comprises transactional HR and strategic HC.

- Missing Career Paths. Many agencies no longer have career paths leading to senior positions in mission critical occupations, because the bottom half of the career ladder was cut off by the RIFs of the 1990's. This means the internal talent development process common in most organizations has been lost. Further, while the employees were eliminated, the work they do was not. Many agencies were forced to shift the work to contractors, often at a much higher cost, putting a further strain on resources. In other cases, where funding was not available for contractors, completion of important work slowed to a virtual crawl. Therefore, not only do career development positions no longer exist, the infrastructure for grooming future technical and management leaders is essentially non-existent in many agencies.
- Federal Workforce Much Older than Private Sector The aging trends of the federal government's workforce are far more advanced than those in the private sector. This is another symptom of the HR policies. The average age of federal employees is pushing 50, with 45% currently eligible to retire in the next two to three years. This reflects both the impending and certain loss of a significant portion

of the government's senior technical experts and leaders and the lack of qualified and trained subordinates to fill the gap. It also shows that the federal government has largely lost the benefits of a diverse,



Figure 2 - Government Lags Far Behind Effectively Managing Talent

"Government agencies fall short in managing talent and sustaining change..."

- IBM Human Capital Institute 2009 multigenerational workforce. To further illustrate the severity, seventy-three percent (73%) of career SES employees will be eligible to retire in the next three years; in fact, a number of agencies already have significant numbers of vacant SES positions, causing inevitable negative impacts on performance *today*.

• Leadership Vacuum. Currently, in a number of cabinet level departments, hundreds of GS-15 and Senior Executive Service positions are vacant, in part because of the slowness of the federal hiring process, but in large part because it is hard to find qualified mangers to fill them. Additionally, the latest OPM climate survey reports that, across government, only 38% of federal employees feel their leadership inspires high levels of motivation and commitment. To aggravate this, political Senior Executive Service (SES) positions turn over every 18 months, often leaving key positions unfilled for months. Political appointees for key leadership positions enter government without the depth of understanding of government issues, how government works, and how to fix the looming problems it faces, and are not in place long enough to have in lasting impact. Not surprisingly, a jaded career workforce simply waits for the political appointees to leave and then return to the tyranny of day-to-day business, unaided by an overarching plan for governance. Clearly, bold and competent leadership is needed to break this conundrum.

Moving Beyond Failed TM Practices

During periods of economic downturn, most organizations experience pressure to cut spending in the areas of employee development and talent management in general. The federal government follows this trend, which is exactly the wrong response at this time. The well publicized critical issues facing the nation require a highly

competent federal government workforce to successfully steer it through these challenging times – and that workforce can only be developed by active and effective leadership, TM policies, programs and technology.

Government managers are not following the lead of private sector managers for TM improvements

In the private sector, fully seventy-four percent (74%) of the HR leaders surveyed - and eighty-three percent (83%) within large enterprises – now believe that integrated talent management is critical to their organizations. Integrated talent management means establishing the credible linkages between strategic HR processes and systems and the business results and outcomes they drive. Seventy-three percent (73%) of HR leaders now

"When compared against corporate organizations, the government falls short in the areas of career development, succession management, performance management"

Bersin & Associates

recognize that a robust talent management strategy, enabled by integrated software, positively impacts financial performance.² But this perspective does not appear to be widespread in the federal sector. As shown Figure 3, in the federal work environment, little if any strategic HR management improvement initiatives are occurring.

Federal career managers often fall back on the adage that government is just different than the public sector, and what works in the private sector will not work in government. While this is surely true in part it is a major mistake to conclude that this is universally the case, and this mistaken conclusion should be rejected in the face of the current challenges. Indeed, the connection between mission results and employee credit and accountability can be made even in government, with the right approach and use of technology. In fact, the OPM Employee Climate Survey demonstrates that the things that motivate, engage and satisfy employees in the federal sector are the same as those in the private sector. This data shows government employees are highly concerned about job satisfaction, career development, and inspirational leadership – the same motivators which drive high engagement and performance in the private sector.

Unfortunately, a recent analysis by Bersin & Associates also shows federal employees do not feel that they have enough career mobility, fair opportunities, or solid leadership. When compared against corporate organizations, the government falls short in the areas of career development, succession management, performance management, and employer brand.³ These are certainly fixable, and the approach and technology solutions that can address them are the same ones so many companies are using successfully today.

Agencies are not adopting basic talent management practices

In a recent study, IBM's Human Capital Institute states, "Our findings suggest ... regulations and inertia are hampering this government's efforts to build a high-performance workforce. We believe this situation could result in public-sector agencies having difficulty in both fulfilling their existing missions and providing for the educational, medical and social needs of the future private-sector workforce. Both of these issues threaten the prosperity of those nations that fail to overcome them." The study goes on to report only forty-five percent (45%) of government respondents believe that leadership identifies and uses competencies to develop the workforce – far below the overall response rate of sixty-six percent (66 %) registered by the full sample of public and private sector respondents. This is an important finding because it is generally recognized that competency management serves as the foundation of any serious talent management system. The study also states, "[The] agencies also fail to transform and sustain change, which we believe is a critical capability for the public sector in the 21st century." Additionally, in the government sector, only forty-three percent (43%) of respondents believe that recent major business changes have been driven by a relevant and clearly communicated vision of the future. Again, this compares poorly with fifty-nine percent (59%) response in the overall sample. In fact, of all sectors and industries examined, the government scores a distant last in its approach to talent management (see Figure 3).

http://news.morningstar.com/newsnet/ViewNews.aspx?article=/BW/20090120005688 univ.xml

² Morning Star News Report January 20, 2009

³ Talent Management Challenges in the Federal Government - Bersin & Associates; August 2008

⁴ IBM Human Capital Institute Report - Tim Ringo, Allan Schweyer, Michael DeMarco, Ross Jones and Eric Lesser 2009

Agencies are not meeting the need to build talent from within

A significant problem with government is that much of the talent must be built from within. Highly specialized, leadership level understanding of government policy and administration and specific technical understanding of unique government programs cannot be obtained "off the shelf" from the private sector. Yet, for reasons noted above, the structure of the workforce in many government programs consists of a senior federal official supported by contractors. In this situation, the companies providing contracted services to the federal government become the sources for replacements of the senior government managers. But this stop-gap solution is inadequate for several reasons including the lack of internal government knowledge, the frequent reluctance of private sector employees to enter the government at that stage of their careers, and the potential for conflicts of interest as the new federal manager oversees a contract with his or her former employer. Therefore, there is a continuing critical need to fill these positions from within.

Agencies continue to fail to solve recruiting and hiring problems

The federal government's incredibly slow hiring and onboarding process has received attention from both the Congress and the press. Yet despite this significant scrutiny and publicity, the average hiring cycle time remains at an abysmal 8 – 16 months. "The sad truth is that the federal government's hiring process is broken. It is inflexible, confusing, time-consuming, and has difficulty matching the right talent with the appropriate jobs. It could easily become a major impediment to improving the caliber of the federal workforce and to capitalizing on a new generation ready to answer the call to service. There has never been a better time to fix this problem." ⁵

The time is certainly ripe, but despite an abundance of legal, regulatory, policy, and business process improvement initiatives, the hiring process has not been fixed or even, by most assessments, significantly improved. This results from several factors, but primarily these two: first, the federal hiring process is designed to advance the policy priority of a merit based civil service which requires a process that will always be more structured and lengthy than private sector processes; and second, the failure of agencies to implement competency management systems - discussed more fully below. On the latter point, in the modern recruiting world where online application tools have resulted in employers routinely receiving an overwhelming number of applications for any advertized position, hiring simply cannot be accomplished without automated assessment and selection tools. But these tools require competencies which are the essential data elements that allow automated systems to "match the right talent with the appropriate jobs." Because the inherent inefficiency of the civil service hiring policy priorities is a permanent fixture of federal hiring, it becomes even more important that agencies attack the TM problem by developing competency management systems that would then allow modern automated hiring tools to be implemented.

⁵ The Federal Government's Broken Hiring Process; *By Max Stier* Special Reporter to the Washington Post, December 2008

Many agencies do not comply with federal legal TM requirements

The fact that competency management is central to successful talent management⁶ has been recognized even in federal statutes. This is the reason the Federal Information Management Act (FISMA) of 2000, the Chief Human Capital Officer (CHCO) Act of 2002, and the newly drafted legislation for the Civil Service Modernization Act of 2005 all require that occupational competencies be identified, gaps against the

competencies be measured, and steps be taken to close the gaps. Similarly, the CFO Act of 2000 also places requirements on the agencies for workforce and succession planning, and specifically requires that federal employee competencies be identified, and gaps in competencies be closed. In addition, the Office of Management and Budget (OMB) recently put out guidance that required agencies to identify mission critical occupation (MCO) competencies, assess the gaps between current talent levels and required talent levels, and take steps to close the gaps. Despite these laws and guidance and resulting agency efforts, most agencies simply have not achieved meaningful results in terms of identifying competency gaps or taking action to close them, primarily due to a lack of follow through and lack of a systematic competency management process and infrastructure.

TM Technology Management Issues in Federal Government

In addition to not being able to move beyond poor TM practices, agencies have failed to widely or successfully adopt TM information technology which has the potential to eliminate redundancies, stovepipes, and excess FTE. There are many reasons for this including lack of internal HR and IT resources, lack of expertise and knowledge, slow procurement cycles, inability to work cross functionally across large federal agencies, and risk aversion. Table 1 is an overview of these issues.

Table 1- Technology Problems Plaguing Government Talent Management Efforts

Software, Cost

- Wrong software cost models selected which are not a good fit for the agencies ability to operate
- Agencies typically underestimate how much it costs to fully implement and operate
- Poor vendor service performance after the sale
- Software is expensive to maintain, infrastructure to maintain absorbs budget
- Upgrades to include new functionality is slow
- Less than 10% of the software functionality is actually used
- Low overall usage by the agency, and low return on investment
- Ecosystem access to broader range of value-added TM and learning services

Implementation

- The President's Management Agenda (PMA) caused many agencies to rush implementation, resulting in partial implementations
- Software is difficult to implement, painfully slow
- Automatic software updates slow and do not include high end, latest functionality
- Lack of a consistent way to align Policy with Technical Capabilities and Expectations.
- IT Security organizations seen as an impediment to progress rather than trusted advisors helping to achieve agency goals

Personnel to Operate It

- Agencies lack the resources, expertise to implement and operate
- Agencies lose control over configuration, user activity and workflows
- Lack of ability to collaborate easily with other parts of the agency
- Lose perspective on business process improvements from an Overall Perspective
- Ease of Data integration

By far, the most significant of these issues is the lack of resources. Ironically, talent management software initiatives suffer from a shortage of talent – i.e., knowledgeable, competent employees with the ability to

⁶ High-Impact Talent Management: Trends, Best Practices and Industry Solutions, Bersin & Associates / Josh Bersin, May 2007.

successfully assess, select, implement, and operate talent management software. Further, with IT departments stretched thin to implement and maintain "mission critical" software, HR projects (which are often mistakenly viewed as back office rather than mission critical) often do not fare well.

Additionally, the technology choices fall short of what is really needed, due to a lack of understanding of the technology market and how new technology can address the very issues that are causing TM software projects to fail. As more fully described below, the TM industry is undergoing rapid and disruptive change as vendors add new functionality and move to fundamentally different service delivery models. In this environment, choosing TM technology that effectively meets the requirements of a particular agency requires both a developed domain subject matter expertise, and time and commitment to properly analyze the agency's particular requirements.

The impact of lengthy procurement cycles cannot be over emphasized. The fact that it can take 6-12 months to procure (let alone implement) a major TM software application (the acquisition part of the government is experiencing a talent shortage as well) means that the technology is often out of date before it is implemented. This situation is further worsened when the lengthy procurement cycle is often extended by IT security reviews. This is in fact the case with many learning management system implementations throughout the government, as discussed below.

Significantly, aging government workers do not embrace technology as a means to help resolve the issues and the lack of expertise to properly select and implement TM technology. A recent IBM study sights, in short, that government managers are far less likely to embrace technology as a means to resolving human capital than those in the private sector..."

Finally, the usefulness of TM technology is often not realized even when it is successfully implemented. Unfortunately, a large number of agencies that have talent management systems implemented are using less than 10% of its functionality. There are many reasons for this, including:

- 1. The technology that was chosen requires the ongoing dedication of significant resources for proper operation but the agencies do not have those resources available to operate the TM system;
- 2. The agencies lack knowledge (and consequently direction and leadership) on the many ways the implemented technology can be leveraged;
- 3. The technology they have implemented is outdated and lacks the up-to-date functionality; and/or
- 4. The management and maintenance model under which the application operates is no longer viable.

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⁷ IBM Human Capital Institute Report - *Tim Ringo, Allan Schweyer, Michael DeMarco, Ross Jones and Eric Lesser 2009*

Flaws in the Federal Government's Current Approach to TM Technology

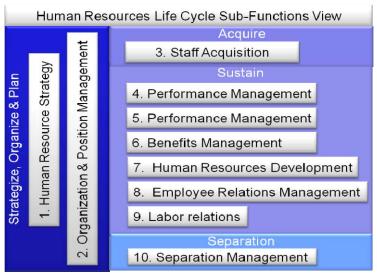
The difficulties individual agencies are experiencing in implementing and using TM technology described in the preceding section are aggravated by several government-wide projects and trends. In one instance, the eTraining Initiative forced agencies to adopt arbitrarily and detrimentally accelerated timelines for implementation of TM functionality. In another case, the Human Resources Line of Business (HR LOB) forced

agencies to adopt a one size fits all solution. Further, the HR LOB has adopted and perpetuated the flawed approach of considering HR transactional and HC strategic processes as a homogenous whole rather than two fundamentally different spheres.

The eTraining Initiative

To date, every cabinet level department (except the Department Defense), and many independent agencies have purchased enterprise learning management systems (LMS), primarily through the Electronic

Figure 3 – The Federal HR Line of Business Reference Model



of

Government (eGov) eTraining Initiative. Under the eTraining Initiative, three providers: The Office of Personnel Management's (OPM) GoLearn program, the National Security Administration's (NSA) Fastrac Program, and the Department of Commerce's National Technical Information Service (NTIS) provided LMS licensing, implementation and maintenance services to federal agencies.

There are several agencies with excellent, highly effective LMS implementations, which derived their LMS from the GoLearn Program. For example the Internal Revenue Service (IRS) administers nearly 2 million course completions through its LMS annually and the United States Department of Agriculture (USDA) has used its LMS to lower the administrative transaction cost per training event to only a few pennies. Additionally, the Federal Aviation Administration (FAA), administers nearly 100% of all completed training or 1.8 million events annually through its LMS. Unfortunately, the success of these agencies' in LMS implementation is the exception, rather than the rule.

While there are a number of factors which contribute to a successful implementation, one common factor with each of these successful agencies is that they have made the necessary investment in the very skilled FTE and contractor support personnel needed for high overall LMS benefit. For example, the FAA has trained and uses over 600 of its employees as system administrators for the LMS but achieves high return on the investment, since the LMS supports over 75,000 employees. But most of the agencies simply do not have the staffing or expertise in place to make these investments and properly operate the LMS or leverage its other TM functionality. Nevertheless, during the period from 2001 – 2005, the agencies were strongly pressured by

OMB to use one of the eTraining service providers to implement an LMS. In retrospect, it is now evident that many agencies were forced to implement these systems without the proper amount of time and agency resources, resulting in partial implementations, or systems that are not aligned with the way the agency manages training and talent.

The HR Line of Business (HR LOB) and Federal Shared Service Centers (SSCs)

OMB launched the HR LOB effort in April 2004 to develop a common HR/HC solution endorsed by Federal agencies. The HR LOB initiative is led by a steering committee with representatives from twenty-four agencies including all of the cabinet level agencies. Through this effort, the federal agencies have developed documentation of a federal enterprise architecture framework, complete with detailed business, service, performance, technical, and data reference models. The HR LOB Business Reference Model (BRM) is intended to help eliminate the prevailing stove-piped, agency-by-agency view, and promote agency collaboration by promoting a common architecture and language.

The HR LOB adopted a service delivery model that seeks to leverage Government-wide SSCs to support multiple agencies in HR management and back office activities. To this end, the HR LOB selected five (5) SSCs to serve this function. In reality, most of these SSCs have been delivering HR services to multiple agencies for over ten (10) years. Further, as becomes clear in the following summaries of their capabilities, the five SSCs primarily support the HR transactional needs of other agencies with little or no capacity for supporting strategic (i.e., TM) functionality requirements:

- 1. **USDA National Finance Center (NFC)** NFC is a division of the Office of the Chief Financial Officer in the USDA and possesses an integrated transactional personnel and payroll system (PPS) as well as EmpowHR, a web-based COTS (PeopleSoft) HR application that is not integrated to a payroll system.
- 2. Department of Interior's National Business Center (NBC) NBC has been an HR SSC for federal agencies for over 25 years and its current HRIT suite covers the core transactional HR sub-functions. NBC currently provides payroll services for 37 agencies and full HR services for four agencies. NBC's suite of HRIT is a modern, flexible system that provides many integrated transactional HR and payroll functions such as benefits processing, personnel action processing, payroll processing, time and attendance reporting, leave requests and approval, and labor distribution. NBC recently established a contract with Plateau, an LMS provider, but has not migrated any customers to this system.
- 3. Department of Defense's Civilian Personnel Management System (CPMS) CPMS operates the Defense Civilian Personnel Data System (DCPDS), the Department's enterprise civilian HR information management and transaction processing system supporting over 800,000 DOD civilian employee records and 1.5 million position records. DCPDS supports DOD personnel through 22 DoD Regional Service Centers (RSCs) and over 300 Customer Support Units (CSUs) worldwide. DCPDS uses a commercial off-the-shelf (COTS) product (Oracle HR), customized for the Federal and Defense environments, to provide personnel transaction processing using Oracle Federal HR.
- 4. **Department of Treasury's HRConnect** HRConnect is an enterprise web-based solution built on PeopleSoft's commercial off-the-shelf (COTS) software. The solution offers a wide range of HRIT functionality including personnel action processing, position management, base benefits, and workflow,

but does not presently offer HR services. NFC provides payroll transaction support to Treasury, and Treasury currently does not provide interfaces to any other payroll providers.

5. Department of Health and Human Services Program Service Center (PSC) – PSC supports all the fee-for-service administrative support functions provided by HHS. In addition to the core HR transactional processes, PSC offerings include assistance in transition to the e-OPF, the e-Induction software application which (facilitates pre-employment and entry on duty processing and requirements), and Office of Workers' Compensation Programs (OWCP) claims processing. PSC's core system is its PeopleSoft HR System, Enterprise Human Resources and Payroll (EHRP). DOD's Defense Financial Assistance Service (DFAS) provides payroll to HHS, and HHS does not currently provide interfaces to the other payroll providers. HHS awarded an LMS contract to Saba in early 2007.

Key Change in Strategy Needed: Transactional and Strategic HR should be Separate Systems

The HR LOB vision is to provide government-wide solutions that address all of HR and improves both transactional processes and strategic decision making. As the foundational effort in pursuing this comprehensive vision, the HR LOB first developed its BRM which is based on an end-to-end mapping of the HR process life cycle (see Figure 3.) Though it started with the well-intentioned aim of developing a comprehensive HR solution, the HR LOB had a flawed design that lumped transactional HR and strategic HR functions together for joint consideration and action.

This approach is flawed for at least three reasons. First, as explained in the next section, transactional and strategic HR are fundamentally different spheres. Second, since the HR LOB service delivery model is based on the SSCs, it necessarily expands the role of the SSCs beyond their HR transactional support base. Not only is the new mission area of strategic HC (i.e., TM) outside of the core competency and capabilities of SSCs, but because of the daily demands and priority given to maintaining and updating transactional HR systems, it is unlikely the SSCs will dedicate sufficient resources to build the strategic HC technology and talent development capabilities so desperately needed by government. Third, the approach dictates a common, one-size fits all approach to TM processes and service delivery which cannot be tailored to the customer's situation.

Proposed Public and Private SSCs Competition Slowed Deployment of TM Systems

In May 2007, OPM, via GSA, issued a Request for Proposals, inviting private sector vendors to submit offers and plans to become HR LOB SSCs. The new private sector SSCs were supposed to augment those already provided by five federal departments. Proposals were submitted and several companies were selected, under a GSA Multiple Award Schedule. From that point, the plan was for agencies to have the ability to competitively select between the federal and the private sector for HR services. However, to date, no

⁸ See http://www.opm.gov/egov/HR LOB/vision goals/index.asp

agencies have undertaken one of these competitions. In retrospect, this strategy was flawed from the start, since government agencies cannot compete directly against private companies. But even if competition were legally feasible, it would remain a practical impossibility because the private and public SSCs are, and will remain, fundamentally different in their capabilities. The private companies were able to assemble solutions that included separate transactional and strategic services, in line with industry best practices. The government SSCs, on the other hand, offer mostly transactional support capabilities, with little or no strategic support. Thus, in order for the federal SSCs to be able to effectively compete, a considerable infrastructure investment would be required before they are able to provide the full spectrum of HR LOB services offered by the private firms. However, the Economy Act (31 USC 1535) prohibits agencies from investing in infrastructure which would be used to compete against private industry, or as a minimum, provide services that are or could be offered by private industry.

The net result of this policy has been to delay the HR LOBs efforts both in terms of agencies moving to the SSCs for HR transactional support and in terms of the development of strategic TM capacity by the SSCs. The former delay is by all accounts doubly regrettable, because the one clear point of agreement between the private and public sectors is that <u>transactional HR is one commodity that can be effectively outsourced,</u> with resulting savings derived from economies of scale. Outsourcing transactional HR can then be a supporting strategy to TM development because it saves precious HR resources which can then be rededicated to critical TM initiatives.

TM Industry Business and Technology Drivers

Even a cursory review of white papers and other sources of analysis of the TM industry discloses how thoroughly and rapidly TM technology is changing. But despite the depth and breadth of change, it is possible to isolate four primary industry trends that will impact the federal government's approach to TM technology: the emergence of the LMS as the foundational element of organizational TM, the separation of transactional and strategic HC, the bifurcation of LMS industry technology, and the bifurcation of LMS service models.

Emergence of the LMS as the Foundation of Organizational TM

The landscape has changed rapidly in the business and technology environment of Talent Management since 2005. The LMS has become a foundational element in organizational training and TM and has seen growth rates of about 20% in the last several years. Historically, all of the leading TM application providers have their roots as learning management system providers. There are several reasons for this.

First, within the typical HR Department, the training organization is usually one of the more progressive elements both because of its subject matter (i.e., teaching new skills and knowledge) and because its primary product, training, is relatively easy to measure for customer satisfaction, which puts considerable pressure on training organizations to perform.

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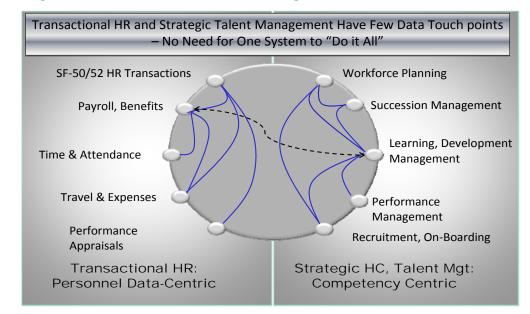
⁹ Learning Technology Josh Berson 2007

Second, the training organization in most HR department has been the key driver of competency development and management, which is the cornerstone of talent management. Because of this role, the technology used by the training organization, the LMS, has become the first application to incorporate competency management capability in a serious way. Once competency management capabilities were developed within the LMS, the door was opened for LMS providers to develop related talent management functionality which also required the competency management core.

Additionally, the LMS has grown to be an enterprise-wide application, because of its ready web access and the fact that there are so many stakeholders that interact directly with the LMS. This easy access and varied stakeholder base means that stakeholder requirements for functionality and service have grown exponentially and LMS providers in today's environment constantly receive a barrage of feedback on suggested improvements and extended capabilities. In many ways, the LMS epitomizes what is happening to the web in general; end users are driving capabilities, with a real time connection between user demands and the functionality supplied

Figure 4 - Transactional HR functions and Strategic HC Have few Data Touch Points.

Finally, because of wide adoption of LMSs, the HR data systems of record are normally already interfaced or integrated with the LMS to service learning management work flow needs. These existing data flows can be easily extended by the LMS to support



performance management needs and thus provide cost savings by eliminating unnecessary, redundant interfaces.

Transactional HR Versus Strategic TM Applications

A number of large government and corporate organizations are attempting to implement a single HR system that does both transactional HR and strategic TM. But to date, there is a glaring lack of any significant success in these attempts, especially in government. There are several reasons for this. Figure identifies the major components of Transactional HR and Strategic HC. As shown, there are few integration requirements required between transactional HR and strategic HC systems, as compared to the integration that is required within the talent management functions, as shown in Figure. This figure helps to illustrate two significant business drivers: first, there is little if any business reason to attempt to procure a system that does both transaction and strategic HR functions from an HR data integration perspective; and second, conversely, the path of purchasing multiple TM functions and then attempting to cobble them together is difficult, expensive, and

risky.

But the reasons to have separate systems for transactional and strategic HR go far beyond data integration requirements. **Error! Reference source not found.** (below) explains the differences between these two types of software, and helps explain why they should be separate systems.

Table 2 - Why Transactional HR & Strategic HC Systems are Different And Should be Managed Separately				
Dimension	Transactional HR Systems	Strategic HC Systems		
End Users	Relatively few end users; usually limited to IT and a small number of administrators	Many end users, often everyone in the organization interacts with the application		
Service Delivery Model	Low level of operational services required; staffing support expertise needed relatively low	High demand for services, such as end user help desk support; make or break for operational success; staffing support and expertise requirements can be high		
Upgrade functionality	Low need for revisions and maintenance requirements for software	High need for frequent upgrades, software improvements, added functionality.		
Costs	Large upfront cost, relatively low maintenance costs.	Upfront costs to purchase vary greatly, depending on the licensing and service model selected.		
Profile of software vendors	High emphasis on software sale, less on after sales support.	Processes geared towards frequent upgrades, high demands of customers for new features, functionality. This results in a unique vendor processes, org structure, culture		

Bifurcation of LMS technology

Since an LMS touches most everyone in the organization, the LMS providers receive a barrage of varied input on new features and functionality. As illustrated in Figure 5 - Bifurcation of LMS Technology — this has caused a bifurcation of the LMS industry because, depending on the predominant client type, LMS providers have been pushed to either provide a deep level of learning technology or a broad level of talent management

Figure 5 - Bifurcation of LMS Technology

services. Those LMS providers that offer great depth of learning technology usually have a customer base with high levels of transactional training delivery. Conversely, those LMS providers that have high levels of TM functionality were almost always driven by a client base that has a need for competency management as it relates t identifying training needs. In the latter case, the

Increase in Enterprise Learning Capabilities

Tools, LCMS, content integration, analytics, domain management collaboration systems, publishing, performance support search, web-services, portals, self-publishing, communities of practice, blogs, wikis, online video....

Increase in Talent Management Capabilities

Employee profiles, job descriptions, performance management, succession planning, HiPo selection, manager / employee portals, assessment, recruiting, applicant tracking, internal recruiting, compensation, workforce analysis, career planning, candidate selection, competency analysis, skills gap analysis, integration or building of HRMS interface to external data sources

Source: Bersin & Associates, 2006.

logical next step was for these companies to provide TM functionality related to competency management, such as performance management.

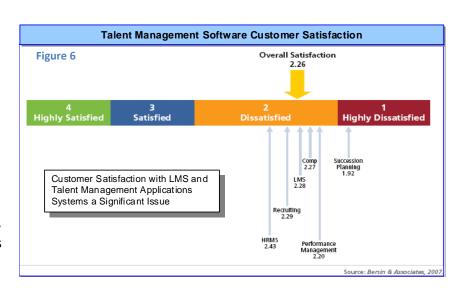
Regardless of the reasons for the divergence among LMS providers, the end result is a confused sea of providers with different approaches to TM, making it difficult for potential clients to weed though the myriad of offerings. Moreover, Gartner's Magic Quadrant report indicates that very few LMS providers are able to execute and provide both depth of learning functionality and breadth of TM capability.¹⁰

To further complicate the potential client's choice, vendors are using two methods to achieve depth of learning functionality and breadth of TM functionality: either (1) build the functionality themselves or (2) partner with best of breed solution providers that have been providing these solutions for years. Both of these approaches have their problems. For example, where providers partner with best of breed TM solutions, they often only achieve a "sales demo level of integration" – the applications seem to work together during the demo but are not truly integrated and able to support the frequent and varied data exchanges required between the applications (see Figure 4 - Transactional HR functions and Strategic HC Have few Data Touch Points. — which shows that integration among the talent management functions is manifold and complex). On the other hand, while organizations that build the functionality themselves should be able to avoid these integration issues, they face the equally daunting problem of providing cutting edge functionality outside of the area of their core competency.

Bifurcation of LMS Services and Business Models – The rise of Software as a Service (SaaS) in the LMS market

Customer Dissatisfaction the with TM Applications - Norm Rather Than Exception

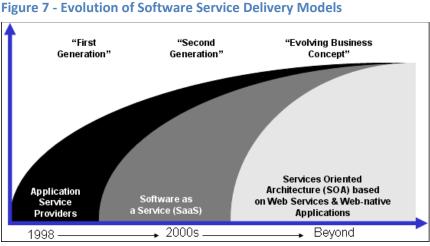
A key reason why many agencies may be unwilling to risk a talent management initiative is because of the horror stories they hear from the few agencies that have tried. Admittedly, customer satisfaction with TM software applications is very low, as shown in Figure 6. This is a major reason why On-Demand, Software-as-a-Service solutions are rapidly gaining popularity. Vendors such as Cornerstone



¹⁰¹⁰ Magic Quadrant for Corporate Learning Systems – Gartner Research June 2008

On-Demand, which features a fully integrated, TM solution, are succeeding in achieving very high levels of customer satisfaction. The SaaS model used by Cornerstone is central to why these levels are so high. The following discussion explains the advantages of SaaS TM system software.

Just as the high level of stakeholder input has driven LMS providers to achieve greater level of functionality, the same dynamic has pushed a bifurcation of service delivery models in the LMS industry. Perhaps the evolution was inevitable but there is no doubt that the newest service model represents disruptive technology driven by



two factors: (1) widespread customer dissatisfaction with 'behind-the-firewall' and ASP models and (2) the superior business model of Software-as-a-Service (SaaS) has inspired large investments by Wall Street. Figure

"We believe the future direction of the software industry is more lucid now than at any time in the past 15 years. As the shift to Software-as-a- Service (SaaS) continues, we see SaaS penetrating and disrupting traditional enterprise software."

> Deutsche Bank Company Research's Research Product Committee -2009

6 shows overall low customer satisfaction for LMS and TM software implementations across the industry; in contrast, SaaS providers have very high customer satisfaction. THINK Strategies and Cutter Consortium surveys found that over 80% of SaaS users were very satisfied and would encourage their peers to consider SaaS¹¹. The LMS Customer Satisfaction Report by Bersin and Associates indicates that the vendors with the highest customer satisfaction are those with true SaaS service models¹².

Therefore, we believe the future belongs to the companies that keep pace with this demand, and deliver ever increasing functionality and very high service standards. The LMS/TM application providers that will thrive include those that can quickly rise to the demand for deep learning functionality and broad TM functionality, yet maintain high levels of service at low cost.

LMS Software-as-a-Service (SaaS) Market: In the past,

¹² Learning Management System Customer Satisfaction – Bersin 2008

¹¹Software-as-a-Service (SaaS): The New Paradigm for the Software Industry - Kate McPherron 2008 http://www1.sao.org/Resource_Center/newsletter_articles/200802/Kate_McPherron_Software_as_a_Service.php

vendors offered either on-premises (behind the firewall) deployment or hosted solutions, not both. Now, many vendors offer three options: on-premises, hosted and SaaS. A SaaS-based offering can be very quick to put into production, so it is becoming the preferred choice of many clients. The SaaS model has built upon and exceeded the ASP model in several ways. While Internet delivery is largely unchanged, the migration to a utility pricing model, or at least a subscription pricing model, was needed to remove buyer risk and reinforce the on-demand message. Another significant advancement was the change in SaaS software applications themselves. When the ASPs started, there were no Web-native, browser-based, thin-client CRM and ERP systems. The ASPs were forced to host traditional client/server and fat client business applications which were never intended for browser access, limited bandwidth or remote and accelerated implementations. SaaS began to excel when pioneering startup organizations designed their software programs for the SaaS delivery model and their businesses for the subscription pricing model.

Currently, many LMS and TM vendors offer either on-premises (behind the firewall) deployment or hosted solutions. But now, due to the market success of SaaS applications, some vendors are attempting to offer three options: on-premises, hosted and SaaS. Because a SaaS-based offering can be quick and easy to put into production, it is becoming the preferred choice of many clients. Amazon, Google and others have helped to demonstrate the elasticity of SaaS. The advancement of other technology, particularly virtualization, will add further motivation for SaaS (also known as on-demand) solutions. By 2010, 65% of all businesses will have at least one SaaS application deployed – enterprise clients will deploy an average of seven SaaS applications by

2012. Figure shows the genesis and evolution of the

service delivery model over time. Using the SaaS model, vendors such as Cornerstone have achieved high levels of customer satisfaction at very low costs relative to ASP models. Importantly, SaaS provides the foundation for a true **Service Oriented** Architecture, which represents the future of internet-based computing. In short, SOA unifies business processes by structuring

Figure 8 - Talent Management Model – Competency Management Foundational to All TM



Source: Bersin & Associates, 2007

¹³ Magic Quadrant for Corporate Learning Systems – Gartner Research Carol Rozwell, James Lundy June 2008

¹⁴CRM Landmark Labs – 2009 http://www.crmlandmark.com/crmlabsindustrytrends.htm

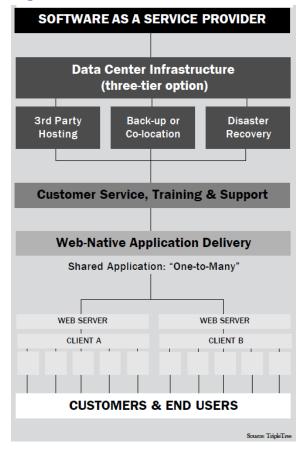
¹⁵ Magic Quadrant for Corporate Learning Systems – Gartner Research Carol Rozwell, James Lundy June 2008

large applications as an *ad hoc* collection of smaller modules called "services". Different groups of stakeholders both inside and outside an organization can use these applications, and new applications built from a mix of services from the global pool exhibit greater flexibility and uniformity. Clearly this is the future of IT architecture, and SaaS is making that future a reality.

The Government TM Solution

Figure 3 (p. 10) shows the HR Line of Business (HRLOB) reference model, in which transactional HR and strategic HR functions are intermixed. We have explained above that transactional HR and strategic HC functions should be separated. This separation is the trend in industry, there are few data integration reasons why they should not be separated, and the vendors that provide these two types of systems are completely distinct (or should be distinct) due to the nature of the services they provide. Instead, a more useful model is shown in Figure 8, in which strategic HC functions are managed independent of transactional HR. This model shows correctly that competency management is foundational to most all strategic HC management. This model is used in the service oriented architecture of leading TMS vendors, and government has a number of vendors that it can choose from.

Figure 9 - SaaS Architecture



The first important point is to avoid the mistake of purchasing an integrated system which contains BOTH transactional and strategic HR functions. There are simply no technical or business reasons for doing so.

Next, agencies should be aware that there is a great deal of difference between the various TM products on the market. On paper, many of these products appear to be similar, since they all now claim to provide most all of the TM functions. But, as reported by TM industry analyst Josh Bersin, the reality is that most of these products do not provide what they claim to. Many TM software vendors are rapidly trying to build an integrated system that includes performance management, recruiting, and compensation, along with a fully functioning LMS. While such a vision is clearly attractive to buyers, very few vendors have successfully pulled this off. Even though a small handful of providers come close to this vision, even these have very few customers implementing more than one or two of their application modules. ¹⁶

For many government agencies, a more pressing question than software features and functions is the service and operations model provided by the vendors. Agencies do not have the resources to select, implement, operate, upgrade and maintain a fully functioning TM system, and because of

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¹⁶ Enterprise Learning Technology: A New Breed of Solutions, Josh Bersin May 2007

this reason the eTraining providers were established. These providers performed the procurement, contracted hosting, performed the security functions and upgraded the software for agencies whose HR and training organizations were unable to perform these functions themselves. In this sense GoLearn and the other eTraining providers served as early SaaS providers. Figure 9 shows the architecture envisioned by GoLearn in 2003; the difference is, today's technology actually achieves this vision.

How to Pick the Right TM Solution for Government.

How, then, should agencies select a vendor? The key issues to consider in your strategy are outlined below. The approach is in part based on the approach recommended by Josh Bersin, and we augment this approach with our knowledge of the federal environment and our experience with a myriad of TM and LMS vendors.

- Clearly Identify the Agency's Business Problem and Tailor the TM Solution. A TM system should be selected based on specific business needs and should be targeted at solving a particular business problem, such as identifying competency gaps, personnel onboarding, complex content management, etc. Proper problem identification will create a clear set of business requirements, functional requirements and a business case. Do not buy a software solution simply because an integrated solution is needed. Instead, develop clear "use-cases" which are detailed examples of how the system must fit your existing business needs and daily processes, to make sure the system can be implemented quickly, with little or no customization.
- Consider your IT and HR resources and expertise. One of the biggest questions to be answered is: "Should the agency procure licenses or should it select a company which offers Software-as-a-Service?" We strongly recommend for most agencies that a SaaS vendor be selected for the many reasons described in this paper. Relatively few agencies have the resources to implement a licensed model; and many that do would be better off with a SaaS TM service, since government agencies are notoriously slow at implementing enterprise software systems. The enormous opportunity cost of having a system implemented slowly and then lagging far behind in technology updates far outweighs any special customization that a licensed model may provide.
- Look at the service and support history of potential vendors. Bersin's Research, LMS Customer Satisfaction 2007 pointed out the single largest driver of overall satisfaction is the quality of service and support from your platform vendors. For government agencies, this is everything. We have seen excellent LMS and TM systems fail during government agency implementations because they were unable to meet the very high demands of government clients for service. We have found that government agencies put very high stress on software vendors because of their own inability to manage the implementation process. Successful vendors have to be willing to go the extra mile and perform many of the functions normally performed by the client in commercial implementations. Again, this is because the government is so short of qualified resources to accomplish software implementations. This is another reason the SaaS model is so appropriate for government agencies.
- Understand the partnerships, business models and service strategies of the vendors. TM and LMS vendors are in an all out rush to add greater depth of learning capability and breadth of talent management capability. They are achieving this depth and breadth two ways: (1) by

building the functionality themselves; and (2) by partnering with best of breed providers.¹⁷ In our experience, most of the providers that attempt to bring together several TM functions have a "brochure level' of integration," or at best, "sales demo integration." We have seen that these types of solutions invariably fail the government. Figure 4 (p. 17) shows that while transactional and strategic HR have few integration points, there is a <u>high degree of integration required amongst the TM functions</u>. Even with today's web services and service oriented architectures, the fundamental structural differences between the suites of TM applications make meaningful deep integration unrealistic.

Benefits of TM SaaS Model for Government Agencies

Government agencies stand the most to benefit from a SaaS model. Figure 10 summarizes the benefits agencies can expect to achieve with a SaaS model. The supporting explanations below amplify each point in the figure.

Highly Flexible Support Operations. Few agencies have the expertise to efficiently conduct and maintain a robust competency management system, which is the foundation of most all TM functions. A true SaaS provider offers this type of support, and can actually operate the agency's competency management system for it, freeing the agency's HR resources to focus on analysis and TM strategy development and execution.

Much Easier, Faster Implementations and Operations. A SaaS LMS implementation, even for a very large organization of 50,000 employees, typically takes a matter of several weeks rather than months (and even years for government implementations). Additionally, the SaaS vendor can provide the project management services to ease the burden on the client, and typically provides a much higher level of service than can be expected with a licensed model. This is primarily due to the motivation of the vendor: with a licensed model the vendor receives most all of its revenue up front; the SaaS vendor must earn its revenue throughout the life cycle of the LMS, and therefore, must assure continuous high satisfaction on the part of the client.

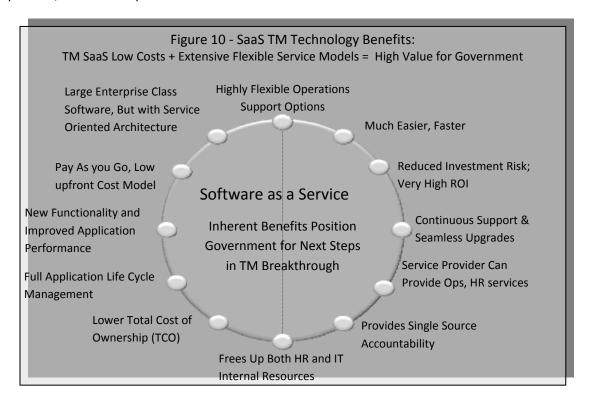
Reduced Investment Risk; High ROI. Agencies do not have to initially buy a large number of user licenses for a software package and set up a significant technical infrastructure. The cost of implementing a full service TM system is roughly about one third to one half of the cost of an ASP licensing model. This reduces up front costs and allows immediate growth potential without long planning cycles. Agencies are positioned to receive immediate benefits from a SaaS implementation which rapidly recoup and surpass the cost of the service.

Continuous Support & Seamless Upgrades. SaaS vendors are highly motivated to provide excellent service and customer satisfaction since the client is able to "walk away" without incurring a major investment loss. SaaS providers are also highly motivated to keep the application up to date with the latest features and functions, and updates are provided quarterly. In today's LMS market, with technology advancement

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 $^{^{17}}$ Enterprise Learning Technology: A New Breed of Solutions, Josh Bersin May 2007

happening almost monthly, this means that highly desired capabilities, such as social learning software, are added to the code base long before such features are available in client server or ASP solutions. Therefore, when an agency is ready to use these features they can be activated without time-consuming, difficult and costly system upgrades. The vast cost savings in this model enables the SaaS vendor to put a great deal of energy back into improving and enhancing the product. And the client enjoys the usage of an always-up-to-date and essentially 'versionless' software solution, with access to the latest and greatest functionality of the product, without the pain of an ASP solution.



Provides Single Source Accountability. Once a client-server solution vendor has received the large up front license fee, the level of service usually drops off significantly. Since the SaaS model is a pay-as-you-go service, the vendor is motivated to provide the best of breed functionality with a high level of service performance. Therefore, successful SaaS vendors must maintain an active relationship with the client. This is absolutely necessary in a government environment when priorities can shift frequently; government clients need the flexibility of talent management system that can respond quickly to shifting priorities and changes in the political landscape.

'Frees-Up' Scarce Government IT and HR Resources. Most government agencies have neither the IT expertise, nor the HR staff to implement and operate a full-featured TM system, because of the complexity of these systems. Additionally, the client-server and ASP solutions were initially designed to be used by a small number of highly trained users. They are notorious for being difficult to navigate and understand. True SaaS solutions are web native applications (designed specifically for the web) and have evolved to fully leverage the Web 2.0 features, functions, look and feel. As a result, SaaS applications require very little training for HR administrators and end users feel immediately comfortable with the intuitive interface. SaaS implementations

take few weeks, as compared to months to implement client-server (behind the firewall) or ASP solutions. SaaS is designed to allow agencies to allow their workforce to operate the system virtually. More and more government employees are working from home or at telework hubs. The SaaS software delivery model leverages this virtual & global work environment. By leveraging the Internet as the software delivery model, the SaaS model meets companies' dynamic and virtual working models without cumbersome technical connectivity issues. SaaS solutions involve hosting a large number of users on a single code base.

Lower Total Cost of Ownership Cost. The key cost drivers for traditional software implementation are the cost of the software application, the hardware required to run the application and the people services required to design, deploy, manage, maintain and support the application. In many cases in the government, the LMS/TM software operations costs (including the staffing to leverage the software and deploy it deeply in to the organization) are dramatically under-estimated. For example, many government organizations underestimate the change management level of effort required to fully implement a competency management system, which is many times higher than the cost of the software itself. Additionally, productivity gains are generally much slower with ASP and client-server solutions, since the agency rarely has the FTE resourses to implement such systems. In contrast, a SaaS provider can cost-effectively provide the resources to implement a competency management system. The higher costs associated with client-server and ASP solutions are largely attributable to the high initial license fee costs (and ongoing maintenance, upgrade fees), the large initial infrastructure capital costs, the costs of supporting the solution, and the high and often unanticipated costs of operating the system.

Full Application Life Cycle Management. The SaaS model makes it extremely easy to manage the entire life cycle of the LMS/TM system initiative, since the vendor provides accurate cost estimates up front. These costs can be broken down into two major groups: (1) the cost to implement, maintain, upgrade is provided as a single cost; (2) optionally, the agency may procure support services for operations for administrator support, and project and change management support to implement TM functions such as competency and performance management. This helps prevent the agency from underestimating the true costs of the system lifecycle. Additionally, because the agency can make a low up front investment, it may either add additional functionality when it's ready, or inexpensively discontinue the system if agency priorities or circumstances change.

¹⁸ Software & Information Industry Association; Software-as-a-Service; A Comprehensive Look at the Total Cost of Ownership of Software Applications; September, 2006

New Functionality and improved application **performance.** One of the biggest issues facing LMS/TM systems is the rapid pace at which new capabilities are expected from end users. The LMS/TM system is very different from traditional transactional applications, because LMS/TM systems have a large number of end users; literally everyone in the organization is a user of a fully implemented LMS/TM system and come with relatively high expectations compared to traditional HR systems. Therefore, there is continuous pressure for ever more and new features and functionality. Many agencies have responded to this pressure by highly customizing their client server solution and ASP solutions in order to meet their functional, mission process requirements and stakeholder expectations. As a result:

- The software vendor increasingly loses control of the different versions of their software in use and experiences great difficulty supporting their client base due to the unique differences each client solution possesses.
- Upgrades become very difficult for both the customer and the vendor since upgrade paths are typically designed for the "vanilla" version of the solution. This process can become extremely costly and time-consuming. In fact, many organizations simply delay this painful experience and resolve to continue using

Table 3 – SaaS Offers a Symbiotic Advantage to Both Vendors and Agencies

How Vendors Benefit From SaaS

- More predictable income stream and less up-front capital required of customers
- Heavily backed by Wall Street and Investors
- Iterative development of software
- Ability to learn and evolve quickly
- Can Add latest features quickly and market them to customers

How Agencies Benefit From SaaS

- Reduces time to skill and knowledge attainment
- Simplicity of software management
- "Pay-as-you-grow" reduces capital and operating costs
- Speed of implementation
- Improved service levels
- Software is managed and maintained easily compared to ASP
- Automatic software updates
- No hardware to manage
- Total cost of ownership reductions >30%)
- Reduced reliance on internal IT

How Government TM Community Benefits From SaaS

- Inexpensive way to comply with federal laws requiring competency management
- User control over configuration, user activity and workflows
- Ability to collaborate easily
- Opportunity to see business process improvements form Overall Perspective
- Ease of Data integration
- Ecosystem access to broader range of value-added TM and learning services
- Consistent way to align Policy with Technical Capabilities and Expectations.

outdated versions of the client server software. This is essentially the situation that many agencies are in today. To eliminate the pressure for expensive customizations, SaaS solutions have been designed with a tremendous amount of configurability built into the system. Configurability differs from customizing the solution in that no underlying code is changed to effect differences in how the software operates. Instead, configuration options (i.e. software switches) are simply turned on and off in the system to change the interface, the look & feel, and the business rules being employed by the system. These changes can take minutes rather than the months or years a customization may take. Furthermore, the software does not change and upgrades and patches are simple to apply.

Large Enterprise Class Software, SOA Architecture. The interoperability of components within LMS and the integration with other mission-critical applications will dominate the learning technology agenda in the TM software industry for the next several years, particularly as companies adopt an enterprise-wide approach to

TM and as demand grows for Web 2.0 features that support sought-after capabilities such as social learning. ¹⁹ This is a profound advantage of SaaS, since it evolves quickly with the market, and provides these new features as functions to their clients almost immediately. For example, a number of agencies are highly interested in integrating social learning with their LMS; however, they are finding from their ASP providers, that this functionality will be available until the next release, which is typically 12 – 18 months in the future. But with a SaaS implementation, this functionality is available almost immediately, and certainly when the agencies are ready to use it. The SOA architecture of SaaS makes this possible. And it makes possible easy integration with most any up-to-date enterprise application.

In summary, SaaS represents a sea change in TM software capabilities, one that has gone untapped by the agencies. Table 3 shows the benefits agencies can expect to reap if they embrace the SaaS model for TM software.20

ROI for TM SaaS: Win-Win for Vendors and Government Agencies

Some federal agencies have achieved excellent return on their LMS/TM system investment. The Federal Aviation Administration (FAA) has completed about 2,000,000 training courses via its LMS over the past couple of years, with 99% of its employees actively enrolled in the LMS. FAA's LMS implementation is deeply integrated into the way FAA manages training, with 100% of all training conducted for its 70,000 employees administered through the LMS, using 1,200 LMS system administrators. The Internal Revenue Service (IRS) has completed 1.5 million courses over the past 18 months or so via its LMS, with all 107,000 IRS employees actively enrolled. The Department of Agriculture (USDA) routinely conducts all of its compliance training via eLearning through the LMS, resulting in millions of dollars of cost savings for the taxpayer. However, these agencies are by far the exception. Many agencies that have LMS implementations have never fully implemented them, and often have only a few employees actively using even small parts of the functionality. The Veterans Administration (VA) is well on its way to achieving a successful LMS implementation for its 226,000 employees; a remarkable accomplishment considering the VA's poor software implementation track record. The key differences between the few agencies that have done well and the rest of government is (1) the successful agencies had excellent leadership and expertise at each management level involved in the LMS implementation; (2) the successful agencies had the IT and HR resources needed to implement, operate and maintain the systems. Unfortunately, most agencies do not have these resources. For this reason, SaaS is an excellent fit for many if not most government agencies.

SaaS has attracted the attention of Wall Street because of its ability to produce a steady revenue stream, and a superior win-win business model for suppliers and customers; investment in this sector is predicted to be heavy. 21 With this financial backing, SaaS will emerge as the leading venue for LMS/TM software delivery, will dominate with superior market performance and continue to attract investors. Therefore SaaS vendors will have the capital to invest in ever increasing depth of technology and broadening the capabilities across the

¹⁹ Key Issues for Creating a Networked Learning Environment, Gartner Research - Carol Rozwell March 2008

²⁰ Software-as-a-Service (SaaS): The New Paradigm for the Software Industry - Kate McPherron 2008 http://www1.sao.org/Resource Center/newsletter articles/200802/Kate McPherron Software as a Service.php ²¹ SaaS and Cloud Computing - Deutsche Bank Securities Inc. Tom Ernst Jr, June 2008

spectrum of TM functions. Technology that so deeply changes the benefits to both customers and the vendors is referred to as "disruptive technology," since it provides superior performance at costs dramatically lower than traditional software. Federal Agencies that automate TM processes can expect large returns on their investments, while minimizing the risk of failure using the SaaS model, as TM SaaS requires a minimal cost and effort to implement up front, yet agencies can expect ever improving and increasing levels of functionality since the software is so easily and frequently updated.

To help illustrate the magnitude of benefit from automating government TM processes, some simple ROI models are constructed below. As an example, Table 4 shows the processes of the HRLOB Subfunction 4.0, Performance Management. Additionally, estimates for the potential FTE time savings that can be expected are provided. These estimates were obtained form the vendors of this software.

Based o	n the Federal HRLOB Performance Management Process 4.0 ²²	Automation Improvemen Opportunity Range*
4.1	Establish Agency Performance Management Strategy	11 / 0
4.1.1	Review Laws, Regulations, Policies and Guidelines	000/ 500/
4.1.2	Develop Agency Performance Management Strategy	20% - 50%
4.1.3	Communicate Agency Performance Management Strategy	
4.2	Establish and Implement Performance Management System and Programs	
4.2.1	Design Performance Management Framework	
4.2.2	Develop Performance Management Program(s)	20% - 50%
4.2.3	Implement Performance Management Program(s)	20 /0 - 50 /0
4.2.4	Assess Performance Management Programs(s)	
4.3	Manage Employee Performance	
4.3.1	Establish Individual Performance Requirements	
4.3.2	Conduct Feedback	30 – 45%
4.3.3	Complete Final Performance Appraisal	30 – 43 /6
4.3.4	Discuss Final Performance Appraisal	
4.3.5	Finalize Performance Appraisal	
4.4	Evaluate Performance Management Effectiveness	
4.4.1	Evaluate Performance Management Program Results	30% - 40%
4.4.2	Evaluate Long-term Impacts and Value of Performance Management Programs	30 /0 - 40 /0

^{*} These ranges or single number estimates are based on research and claims of R&S providers coupled with first hand knowledge of these federal processes and sub-functions

Table 5 calculates the estimated FTE cost savings that can be expected from automating the performance management process. Labor hours to perform the two primary categories of performance management, performance plan development and performance process management are estimated based on analysis of the

²² HR Line of Business Reference Model (HRLOBRM), V2 December 2006

subtasks detailed in the HRLOB.²³ Note that although the calculations are rough, conservative estimates of labor costs, time to perform tasks and labor rates are made to help provide credibility for the estimated

 Table 5 - Cost Savings Estimate - Automating Performance Management Process in Agency of 10,000

FTE Cost Savings From Automating Performance Mangement				
Process:	Mgr Performance Plan Development		Performance Management	
	C	osts	Proces	s Costs
Savings are for FY09 - 12	Manual	Automated	Manual	Automated
Formula	Cost = Numb	er Labor Hours* Labo	r Rate*Number	Employees
Employees	\$6,200,000	\$4,960,000	\$6,200,000	\$4,960,000
First Line Supervisors	\$2,160,000	\$1,728,000	\$2,160,000	\$1,728,000
Senior Managers	\$42,500	\$34,000	\$42,500	\$34,000
Total Annual Cost	\$8,402,500	\$6,722,000	\$8,402,500	\$6,722,000
Total Annual Savings Manual vs Automated (PV)	\$1,6	80,500	\$1,34	14,400
Total FTE Savings FY09 - 12 Manual vs Automated (PV)	\$15,124,500			
Assumptions	Number	Full Burdened Labor Rate	Manual Hours/year	Auto. Eff. (% Faster)
Employees	10,000	\$62	10	20%
First line Supervisors	1,500	\$72	20	20%
Senior Managers	100	\$85	5	20%

savings.

Table 6 shows the processes of the HRLOB Subfunction 7.0, Learning and Development Management. Additionally, estimates for the potential FTE time savings that can be expected are provided. These estimates were obtained form the vendors of this software.

Table 6 -	Subfunction 4.0 of the HRLOB: Learning & Development Automatic	on Cost Reduction Estimates
Based or	n the Federal HRLOB Performance Management Process 7.0 ²⁴	Improvement Opportunity Range*
7.1	Establish Agency Human Resources Development (HRD) Management Strategy	
7.1.1	Review Laws, Regulations, Policies and Guidelines	20% - 50%
7.1.2	Develop Agency HRD Vision	
7.1.3	Communicate Agency HRD Vision	
7.2	Conduct HR Development Needs Assessment	
7.2.1	Determine Competencies to be Addressed by HRD	
7.2.2	Identify / Propose HRD Program	20% - 50%
7.2.3	Analyze, Prioritize and Select HRD Programs and / or Learning Opportunities to be Implemented	2070 0070
7.3	Develop HR Development Program	
7.3.1	Conduct Training Needs Analysis for Each Approved HRD Program and/or Learning Opportunity	
7.3.2	Design HRD Program Content	25% – 45%
7.3.3	Select HRD Program Provider	
7.3.4	Develop HRD Program	
4.3.5	Establish Overall Implementation Time Frames and Predict Program Life Span	

²³ HR Line of Business Reference Model (HRLOBRM), v2 December 2006

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²⁴ HR Line of Business Reference Model, December 2006

Table 6 - Subfunction 4.0 of the HRLOB: Learning & Development Automation Cost Reduction Estimates		
Based	on the Federal HRLOB Performance Management Process 7.0 ²⁴	Improvement Opportunity Range*
7.3.6	Review and Validate HRD Program	
7.4	Implement HR Development Program	20% - 40%
7.4.1	Pilot HRD Program	20% - 40%
7.4.2	Revise HRD Content and Methods of Delivery	
7.4.3	Announce HRD Program	
7.4.4	Administer Training	
7.5	Manage HR Development	
7.5.1	Create or Update Individual Development Plan	20% - 40%
7.5.2	Development Plan	20% - 40%
7.5.3	Assess Progress Against Individual Development Plan	
7.6	Evaluate HR Development Program Effectiveness	
7.5.1	Evaluate HRD Program	209/ 409/
7.6.2	Analyze HRD Program Results	20% - 40%
6.6.3	Evaluate Long-term Impacts and Value of HRD Programs	

^{*} These ranges or single number estimates are based on research and claims of R&S providers coupled with firsthand knowledge of these federal processes and sub-functions

Table 7 calculates the estimated FTE cost savings that can be expected from automating the Learning and Development process. Labor hours to perform the two primary categories of performance management,

Table 7 - Cost Savings Estimate - Automating Performance Management Process in Agency of 10,000

Table 7 - Cost Savings Estimate - Automati	ng Periorinanc	e ivialiagement	FIUCESS III Ag	sericy or 10,00	0
Cost Savings From Automat	ting the Learni	ng & Developm	ent Process		
Process:	Request	for Training	TNA, Administrative		
Savings are for FY09 - 12	Manual	Automated	Manual	Automated	
Formula	Cost = Numb	er Labor Hours/Trans	saction* Labor R	ate*Number	
	E	Employees*Number	of Transactions		
Employee (End User) Cost	\$1,860,000	\$1,302,000	\$1,860,000	\$1,302,000	
First Line Supervisors /Managers Cost	\$864,000	\$604,800	\$0	\$0	
Training Staff Sign Off	\$1,020,000	\$714,000	\$3,570,000	\$2,499,000	
Clerical Processing	\$1,035,000	\$414,000	\$1,932,000	\$772,800	
Total Annual Cost	\$2,724,000	\$1,906,800	\$7,362,000	\$4,573,800	
Total Annual Savings Manual vs Automated (PV)	\$81	7,200	\$2,78	88,200	
Total Savings FY09: FY012 Manual vs Automated (PV)		\$14,421,	600		
					Automation
	Number		RFT Hours per	Admin Hours	Efficiency
Assumptions	Employees	Rate	Transaction	per Transaction	(% Faster)
Employee (End User)	10,000	\$62	1	1	30%
Manager(s)	1,500	\$72	0.4	0.4	30%
Training Staff Sign Off	7	\$85	0.4	0.2	30%
Clerical Processing	7	\$46	0.75	0.2	60%
Average Number Requests per Employeee	3				

performance plan development and performance process management are estimated based on analysis of the subtasks detailed in the HRLOB.²⁵ Note that although the calculations are rough, conservative estimates of labor costs time to perform tasks and labor rates are made to help provide credibility for the estimated savings.

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²⁵ HR Line of Business Reference Model (HRLOBRM), v2 December 2006

ROI ASP vs SaaS Comparison

Using the FTE cost savings calculations above the ROI for ASP and SaaS solutions are calculated as shown in **Table 8**. Note that industry analysts report that SaaS represents about a 30% cost savings over traditional ASP software implementations. But for government, when the full costs of implementation, maintenance, upgrades, security and operations costs are considered, the cost difference between SaaS and ASP are much higher. Note that the ASP costs shown in **Table 8** are based on actual ASP LMS costs we see being paid by the government today. Likewise, the SaaS estimates are based on what we see being paid by the commercial sector. In addition, note these calculations are based on the implementation of just two LMS modules,

Learning and Performance

Management. When the remaining modules are used, agencies can expect to see ROIs even higher. Realistically, it is hard to accurately estimate the ROI for a complex system application such as an LMS. However, the rough estimate proposed above lends credibility to point that for government, the SaaS model will yield a much higher return on investment over a traditional ASP model.

Table 8 – ROI ASP vs SaaS – For Government, SaaS is Much Higher

	ASP	SaaS	
System First Year Costs	\$1,200,000	\$40,000	
System Outyears Costs (Years 2 - 4)	\$1,500,000	\$450,000	
Total Costs	\$2,700,000	\$490,000	
FTE Cost Savings Automating Performance Management (Years 1 - 4)	\$15,124,500		
FTE Cost Savings Automating Learning and Development (Years 1 - 4)	\$14,421,600		
Return on Investment	994%	5930%	

For Government, SaaS provides substantial savings over traditional ASP, when full implementation, hosting, upgrades and operational support differences are considered.

LMS / TM Service Models - What to look for

A key point of this paper is that a SaaS business model is so different from traditional client- server and ASP

models that the Figure 11 - Licensed vs SaaS On-Demand TM Solutions - Bersin 2006

code, business case, skills set and organizational structure and even company culture needed to effectively deliver it is completely different than an ASP model. Indeed, it is virtually impossible for a company that

	Licensed	On-Demand
Acquisition	Purchase and pay maintenance.	"Rent" or "license."
Configuration and Upgrades	You take responsibility.	Vendor takes responsibility.
Content Integration	You do it.	Vendor likely to do it.
Systems Integration	Highly flexible but complex.	Less flexibility and fewer options
Typical Risks	High cost; long implementation.	You are at the mercy of the vendor.
Best Fit	Global enterprise; heavy IT commitment.	Enterprise or mid-market; fewer resources.
Satisfaction	Fair.	Generally higher if provider delivers.
Key Vendors	GeoMetrix, Oracle, Plateau, Saba, SAP, SumTotal.	Cornerstone OnDemand, GeoLearning, KnowledgePlanet, Learn.com, Meridian KSI, TEDS.

delivers an ASP solution to be effective at delivering a SaaS solution. Therefore agencies should be wary of vendors that supposedly offer both models. A careful evaluation of the code and vendor satisfaction will reveal the viability of a vendor's SaaS offering.

The differences between licensed and SaaS providers is significant, particularly in the level of service they provide. Figure shows the primary differences between these systems and lists leading providers of each model.

Beware of SaaS Claims of Traditional Licensed or ASP Providers

Essentially, an ASP solution is a client-server solution that is hosted by a third party. Although this saves a lot of cost compared to a behind the fire wall implementation, the costs are much higher than a SaaS solution because all of the drawbacks of software upgrades, customization costs, licensing, and the potential lost opportunity cost of agencies trying to do it all themselves – and failing.

Moreover, because of the popularity of the SaaS LMS service model with customers and investors, many traditional ASP LMS providers are now scrambling to reposition their ASP offerings as SaaS. However, ASP providers are unable to deliver true SaaS benefits for the same reasons that transactional HR system providers are unable to deliver successful strategic HC systems: it is not in their DNA. In other words, the development and delivery processes, organization, and even culture of an ASP vendor are completely different than a vendor that provides true SaaS. In fact, true SaaS providers do not offer ASP services, since they realize that it simply cannot be done – it is a completely different service offering, and to attempt to offer it would have a negative impact on the quality of true ASP services. The *Deutsche Bank Research Product Committee* notes that software heavy-weights are trying to enter the market, but significant struggles with structural misalignment, time-to-market with R&D impediments, and business model hurdles may all be potentially too high to overcome for ASP providers. This is exactly what "SaaS-wannabe" LMS ASP companies are experiencing. So potential government clients should be wary of providers that say they offer both models. Our experience is that they fail to offer either model as well as those companies that specialize in one model or the other.

Understand the partnerships, business models and service strategies of the vendors. TM and LMS vendors are in an all out rush to add greater depth of learning capability and breadth of talent management capability. They are achieving this depth and breadth two ways: (1) by building the functionality themselves; and (2) by partnering with best of breed providers. In our experience, most of the providers that attempt to bring together several TM functions have a "brochure level' of integration," or at best, "sales demo integration." We have seen that these types of solutions invariably fail the government. This is amplified by Figure 11, showing the marked difference in customer satisfaction between licensed and on-demand TM solutions. For government clients, the difference in satisfaction levels is far greater, as government clients are far more demanding and expect so much more than commercial clients. This higher demand is primarily due to the fact that government employees involved in LMS implementations, which is often assigned to over burdened HR

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²⁶ SaaS and Cloud Computing - Deutsche Bank Securities Inc. Tom Ernst Jr, June 2008

employees with little software implementation experience, have limited understanding of the nuances of software project management, and frequently blame the vendor when their expectations are not met. Therefore, the SaaS model is a far better fit for government because of the 'high touch, white glove" level of service that only SaaS vendors can provide.

Additionally, since 2006 when this table was constructed, SaaS LMS models have been implemented in a number of very large enterprises (i.e., with over 100,000 employees). This demonstrates that the On-Demand model is a good fit for global enterprises as well as medium sized organizations.

Call to Action

Clearly the need for an effective, highly skilled and knowledgeable workforce, able to address the serious challenges facing our nation is greater now than ever. Fortunately, strategic talent management technology and the service models to implement and operate it have matured to the point that agencies can rapidly leverage this technology to address critical talent management challenges. To exploit these circumstances the following actions should be accomplished immediately:

- Send a direct and unequivocal message to all top career senior executives and political appointees at every federal department and agency that TM processes, particularly the hiring process are high priorities²⁷. The fact that the agencies are in violation of public law regarding management of the workforce speaks volumes about the state of accountability and expectations of senior government officials. A number of public laws, including the Clinger Cohen Act, the CHCO Act, and the CFO Act, to name a few, level specific requirements for basic TM capabilities, such as identifying competencies and competency gaps. As another example, the hiring process has not improved significantly in the past ten years; the fact that there has been no serious accountability for this crippling failure is a clear break down in leadership.
- Appoint a Talent Management Technology Officer, who has profound insight and understanding of both
 the management and technical issues facing the government and solid understanding of the industry. High
 on the "to do" list should be to provide readily available software solutions to agencies that can be adopted
 quickly and used to improve key TM processes. Most importantly this software should be used to improve
 the disastrous hiring process.²⁸
- Implement a SaaS type service model to deploy the TM software. Agencies are ill equipped to procure, implement, maintain, secure and operate this type of software without the help that a SaaS service model can provide. Charter competing fee for service government organizations to provide these services. Channel additional staff and resources to get the hiring process and other key TM processes right and hold managers accountable.
- Revamp (or eliminate) the HR Line of Business Reference Model (HRLOBRM) the current model leads agencies in the wrong direction for the management of human capital. The HRLOB reference model shows strategic and transactional HR being managed in one continuum. Since this does not reflect the reality of

²⁷ The Federal Government's Broken Hiring Process; *By Max Stier* Special Reporter to the Washington Post Friday, December 2008

²⁸ The Federal Government's Broken Hiring Process; *By Max Stier* Special Reporter to the Washington Post Friday, December 2008

• Repurpose the SSCs. This paper explains why organizations that perform transactional HR functions are unsuited to perform strategic HC functions. Additionally, from a technical perspective, there is little if any reason why these transactional and strategic functions should be integrated. Rather, there are plenty of reasons why these functions should be delivered separately. Therefore, a separate organization should be formed to implement and operate strategic HC management functions on behalf of the agencies.