HR in the Cloud: Bringing Clarity to SaaS Myths and Manifestos
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Executive Summary

Organizations face a number of challenges when moving their HR applications into the cloud. Companies seeking solutions like talent management and compensation must ensure that Software-as-a-Service (SaaS) offerings in these areas can integrate seamlessly and cost-effectively with their existing infrastructures, and provide a unified view into employee data and the workforce lifecycle. Global employers require cloud solutions that not only support compliance with employee and data privacy regulations in foreign countries, but also deliver multicurrency functionality for processes such as performance and compensation management. And cost-conscious organizations everywhere need to thoroughly evaluate the total cost of owning a SaaS solution versus a hosted or on-premise application, to determine what deployment models will reduce costs and risks not just one year from now, but throughout the entire application lifecycle.

With the arrival of Oracle Fusion Human Capital Management (HCM), Oracle is redefining the Total Cloud Ownership experience, with a full suite of enterprise-grade, SaaS HCM applications that can be deployed easily and securely across any environment, from private and public clouds, to hybrid, on-demand, or on-premise environments. Oracle Fusion HCM is also redefining the business of HR, with applications that deliver a next-generation user experience, built-in business intelligence, networking and collaboration capabilities, and embassy-grade security. With Fusion HCM, Oracle is also bringing to market a number of innovative new modules that no other vendor provides, such as Oracle Fusion Network at Work, Oracle Fusion Talent Review, and Oracle Fusion Workforce Predictions. And all Fusion HCM modules are fully integrated, with a consistent user interface and an open, standards-based platform that meets the usability demands of your employees, and the technology requirements of your IT organization.

This white paper is designed to give you greater insight into the pros and cons of putting your HR applications in the cloud, whether you leverage Oracle’s Fusion HCM solutions or other third-party SaaS offerings. You’ll learn about which applications and cloud delivery models make the most sense not just for your HR organization, but for your company’s industry and business model. You’ll also gain a better understanding of the myths circulating about SaaS and other cloud solutions, and why an enterprise-grade solution like Oracle Fusion Human Capital Management may make the most sense for your organization’s HR technology needs and enterprise applications roadmap.
Introduction

According to a 2010 survey conducted by the Boston Consulting Group of 5,500 HR organizations worldwide, HR executives acknowledged big capability gaps in some of the key skills needed to drive greater business alignment, such as business analytics, business planning, and client relationship management.\(^1\) HR alignment with the business has also been hampered by the fact that corporate finance and other business functions continue to command a greater share of corporate IT budgets, especially since the global economic recession hit in 2008.\(^2\)

With the focus now shifting toward growth initiatives, HR executives are looking at both core HR transaction systems and talent management solutions to help their organizations become more strategic to the business and more valuable to the top and bottom lines. With many of these applications now available as a service, interest in cloud computing has ramped up significantly among HR technology decision-makers looking for ways to deploy HR applications quickly and cost-effectively. Because cloud solutions don’t require any upfront investment, HR organizations can deploy new functionality without having to make a business case to IT for budget approvals.

Despite the obvious appeal of cloud computing, organizations face a number of challenges when moving their HR applications into the cloud, from unanticipated costs to integrate disparate systems, deliver customized functionality, and train and support users; to risks associated with cloud security, privacy, and exposure to third parties. Here at Oracle, we believe it’s time to look beyond the myths and manifestos circulating around cloud computing, and provide a more balanced perspective to the pros and cons of putting your HR applications in the cloud.

Oracle knows your HR business challenges intimately, having worked with tens of thousands of customers around the world to develop, test, and implement the industry’s most complete, best-in-class portfolio of HCM solutions. We also know the cloud from the ground up, based on our leadership in the foundational database, middleware, and application management technologies now powering cloud computing; our expertise as the world’s second-largest SaaS provider, with 5.5 million users worldwide; and our in-house experience running one of the world’s largest private clouds for Oracle’s development and consulting organizations.

With the arrival of Oracle Fusion Human Capital Management (HCM), Oracle is redefining the Total Cloud Ownership experience, with a full suite of enterprise-grade, SaaS-ready HCM applications that can be deployed easily and securely across any environment, from private and public clouds, to hybrid, on-demand, or on-premise environments. Oracle Fusion HCM is also redefining the business of HR,

\(^1\) “Creating People Advantage 2010”, Boston Consulting Group, September 2010.
with applications that deliver a next-generation user experience, built-in business intelligence and networking and collaboration capabilities, and embassy-grade security, With Fusion HCM, Oracle is also bringing to market a number of innovative new modules that no other vendor provides, such as Oracle Fusion Network at Work, Oracle Fusion Talent Review, and Oracle Fusion Workforce Predictions. And all Fusion HCM modules are fully integrated, with a consistent user interface and an open, standards-based platform that meets the usability demands of your employees, and the technology requirements of your IT organization.

In the next two sections, we’ll review the various cloud computing options on the market today, and discuss why HR organizations need the freedom to choose how best to leverage the cloud to advance their goals and broader enterprise objectives.

Cloud Computing: Sounds Great! (But What Is It?)

“CFOs have high hopes for cloud computing, even though they don’t appear to know much about it.”

According to a March 2011 survey conducted by CFO Magazine, nearly a third of all CFOs admitted that they didn’t know much about cloud computing, and weren’t even sure what the term meant. Yet, when asked how cloud computing might affect their company’s approach to IT, almost half believed that it would enable a significant restructuring of their entire IT strategy.

HR executives have similar hopes for cloud services. Forty percent of HR executives surveyed by CIO Insight in 2010 planned to implement a SaaS solution for core HR needs by the end of 2011, with cost savings being the largest business driver for that decision. With management’s focus now shifting toward growth initiatives, HR executives are also looking at point SaaS solutions for talent management, recruiting and compensation, and workforce analytics to help their organizations become more strategic to the business and more valuable to the top and bottom lines.

Although much of HR’s interest in the cloud has been focused on SaaS solutions delivered over public clouds, cloud computing by definition is much broader than SaaS and its benefits far more extensive. Gartner, for example, predicts that most companies will choose to leverage a mix of private and public cloud solutions over the next ten years. The key is to identify whether your organization has the right cultural and technology fit for cloud computing, then familiarize yourself with all of the applications,

4 Ibid.
5 McCafferty, Dennis, “Human Resources Turns to SaaS”, CIO Insight, April 28, 2010.
services, and delivery model options available on the cloud, so you can pick and choose the right mix of solutions to effectively advance your enterprise and HR organizational goals.

Cloud Computing 101

“I’ve looked at clouds from both sides now...From up and down and still somehow...it’s cloud illusions I recall...I really don’t know clouds at all.”

– Singer-songwriter Joni Mitchell, from the album Clouds

When Joni Mitchell sang about the mysteries of clouds in her 1969 hit “Both Sides Now”, mainframe computing was just hitting its stride. Today, some analysts describe cloud computing as nothing more than a reincarnation of the classic mainframe client-server model, with massive computers powering a professionally managed pool of resources. Others compare the cloud to an electrical grid, with software characterized as a utility that is on-demand, pay-as-you-go, and easily scalable (elastic).

According to the National Institute of Standards (NIST), cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources that can be rapidly provisioned and released with minimal management effort or service provider interaction. Cloud computing is an outgrowth of established, tested technologies that Oracle has been providing for the better part of the past decade, including grid computing, virtualization, dynamic provisioning, SOA shared services, and management automation. It also incorporates emerging capabilities such as on demand self-service, measured service, and elastic scalability that are still being tested and refined by organizations.

NIST’s definition has gained broad support from the industry, as has NIST’s description of the essential characteristics, deployment modes, and service models that characterize cloud computing.

**Table: NIST Definition of Cloud Computing**

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<td>• Rapid Elasticity</td>
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<td>• Measured Service</td>
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<td>• Broad Network Access</td>
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<th>Service Models</th>
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<td>• Private Clouds</td>
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<td>• Hybrid Clouds</td>
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<td>• Community Clouds</td>
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Three Deployment Modes

**Software as a Service (SaaS)** – In the SaaS model, applications are delivered as a service to end users, typically over a web browser. There are hundreds of SaaS service offerings available today, ranging from horizontal enterprise applications to specialized applications for specific industries, and also consumer applications such as Web-based email. Oracle’s new Fusion HCM suite is an example of a SaaS offering that provides both multi-tenant as well as single-tenant options that can be deployed over public, private, or hybrid clouds, depending on an organization’s needs. Niche SaaS vendors only
offer one option – a multi-tenant SaaS solutions over public clouds. For HR organizations who demand a higher level of privacy and performance, niche SaaS offerings may not be enough.

**Platform as a Service (PaaS)** – An application development and deployment platform delivered as a service to developers who use the platform to build, deploy and manage SaaS applications. The platform typically includes databases, middleware and development tools, all delivered as a service via the Internet. Oracle offers a comprehensive PaaS product offering for public cloud service providers as well as enterprise customers to build their own public clouds. Oracle calls this the *Oracle PaaS Platform.*

**Infrastructure as a Service (IaaS)** – Servers, storage, and networking hardware delivered as a service. In this mode, infrastructure hardware is often virtualized, so virtualization, management and operating system software are also part of IaaS. An example of IaaS is Amazon’s Elastic Compute Cloud (EC2) and Simple Storage Service (S3). Oracle provides hardware and software products to IaaS providers to enable their public cloud services, and also offers the same technologies to enterprises for private use.

**Four Service Models**

**Private Clouds** – For exclusive use by a single organization and typically controlled, managed and hosted in private data centers. The hosting and operation of private clouds may also be outsourced to a third party service provider, but a private cloud remains for the exclusive use of one organization. This type of service model is well-suited to larger organizations that need to standardize their processes and infrastructure, and desire the security, reliability, and greater control delivered with a private cloud.

**Public Clouds** – For use by multiple organizations (tenants) on a shared basis and hosted and managed by a third party service provider. Public clouds work well for companies seeking to avoid upfront capital costs and willing to forego customization of the processes being outsourced.

**Community Clouds** – For use by a group of related organizations who wish to make use of a common cloud computing environment. For example, a community might consist of the different branches of the military, all the universities in a given region, or all the suppliers to a large manufacturer.

**Hybrid Clouds** – When a single organization adopts both private and public clouds for a single application in order to take advantage of the benefits of both. For example, in a “cloud bursting” scenario, an organization might run the steady-state workload of an application on a private cloud, but when a spike in workload occurs, such as at the end of the financial quarter or during the holiday season, they can “burst out” to use computing capacity from a public cloud, then return those resources to the public pool when they are no longer needed.
HR in the Cloud: The Freedom to Choose

“SaaS is simply a deployment model. This delivery method is not one-size-fits all. It's important to take a pragmatic view of SaaS in your IT landscape and understand the potential trade-offs of SaaS versus on-premises solutions.”

– Tom Malone, “The Top 5 Myths about SaaS”, HR Technology Magazine

Oracle believes that customers must have the choice to mix and match HCM applications and deployment models based on their unique business needs. Global organizations looking to put HR applications in the cloud need solutions that not only support compliance with employee data privacy regulations in foreign countries, but also provide multicurrency functionality for processes such as performance and compensation management. Fast-growing companies looking at solutions for talent management and recruitment must ensure that any SaaS solutions they choose can integrate seamlessly and inexpensively with their existing infrastructures, and scale as the company expands. And cost-conscious organizations everywhere need to thoroughly evaluate the costs of pure SaaS versus on-premise or hybrid environments, to determine what deployment options will reduce costs and risks not just one year from now, but throughout the entire application lifecycle.

HR organizations considering SaaS solutions should also take into consideration both the industry in which they compete, and the role of IT in their business and innovation models. SaaS solutions that aren't built with open standard tools, such as proprietary HCM solutions offered by some niche SaaS vendors, cannot be customized or extended for innovative or strategic uses and therefore might not be a good fit in industries that use IT intensively or where innovation drives the business model, such as financial services, telecommunications, media, high tech, and pharmaceuticals. Conversely, organizations in sectors such as manufacturing, mining and utilities, that prioritize low IT costs and are willing to forego extensibility and customization, may build a portfolio where more vanilla SaaS applications predominate.

Oracle knows that customers need the freedom to choose how and where they run their HR applications, whether that's on a public cloud, a private cloud, on premise, or hosted by a third party. In a survey done by the Independent Oracle Users Group (IOUG) in October 2010, nearly half of respondents were either running, planning, or considering some type of private cloud, while only 14 percent were using public cloud services such as Amazon’s Elastic Compute Cloud (EC2) or Salesforce.com’s Force.com infrastructure services. The top three most common

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8 “Do the Economics of Software as a Service Compute”? CIO Executive Board,
reasons given for implementing services via private versus public clouds were concerns over security, quality of service, and long-term cost.\(^9\)

Most users indicated that they were more comfortable developing private clouds on their own, with just 8 percent tapping an outside provider to run private cloud services. In the survey, Oracle users also identified HR and financial applications as the two most common business processes they now run on private clouds.

**Figure 9: Applications Run on Private Cloud Services**

<table>
<thead>
<tr>
<th>Application Type</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Financial/accounting</td>
<td>20%</td>
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<tr>
<td>Human resources/benefits</td>
<td>19%</td>
</tr>
<tr>
<td>Email, collaboration, communication applications</td>
<td>18%</td>
</tr>
<tr>
<td>Home-grown applications</td>
<td>16%</td>
</tr>
<tr>
<td>Inventory/shipping</td>
<td>10%</td>
</tr>
<tr>
<td>Procurement/purchasing</td>
<td>11%</td>
</tr>
<tr>
<td>Customer service</td>
<td>4%</td>
</tr>
<tr>
<td>Desktop productivity applications</td>
<td>10%</td>
</tr>
<tr>
<td>Virtual desktop</td>
<td>14%</td>
</tr>
<tr>
<td>Departmental or line-of-business applications</td>
<td>9%</td>
</tr>
<tr>
<td>Marketing/sales</td>
<td>8%</td>
</tr>
<tr>
<td>Don’t know/unsure</td>
<td>44%</td>
</tr>
<tr>
<td>Other</td>
<td>9%</td>
</tr>
</tbody>
</table>

Source: Privatizing the Cloud, 2010 IOUG Survey on Cloud Computing

For the better part of a decade, Oracle has been investing in and delivering many of the foundational technologies that are driving the adoption of cloud computing today. Most of the world’s private clouds run on Oracle Database and Oracle Fusion Middleware, and many public cloud service providers rely on Oracle’s cloud technology stack to power their offerings. Oracle is also the world’s second largest SaaS provider, with over 5.5 million users worldwide using Oracle’s cloud services at our world-class data centers.

Unlike many of the niche SaaS offerings available that are focused on narrow markets like sales force automation and human capital management, Oracle offers private and public cloud solutions across the entire technology stack, from applications to disk, all engineered to work together to help you provision and optimize your cloud experience. All our cloud solutions are enterprise-grade in terms of high performance, scalability, reliability, availability, security, and standards-based portability and interoperability. Oracle’s cloud strategy is designed to give customers a choice in how they leverage the cloud, with technology that enables organizations to build private clouds, for shared service centers or

other applications; public clouds, to subscribe to a SaaS or PaaS offering; and hybrid clouds, to utilize some applications as a service and deploy others in a private cloud at your data center. Oracle’s next-generation Fusion Applications offer customers a non-disruptive path to the cloud with 100% cloud-ready, modular applications that can co-exist gracefully with your current applications investments.

Our position on enabling customer choice in the cloud supports Gartner’s view that enterprises should evaluate the benefits of cloud computing across multiple dimensions - such as the level of control an enterprise needs over cloud services, to the type of architecture, access, and skills required to make cloud computing a success.

In the section that follows, we’ll examine some of the unique considerations HR organizations face as they seek to leverage cloud solutions to improve operations and align HR strategically with the business. Then we’ll look at the pros and cons of moving HR processes to the cloud.

HR in the Cloud: Bringing Clarity to SaaS Myths and Manifestos

“Co-tenancy is hard…There were some dark days as we struggled with the sheer size of the tasks we’d taken on, and some of the differences between how Amazon’s cloud operates vs. our own data centers.”—John Ciancutti, Vice President of Engineering, Netflix, Inc.10

Video distributor Netflix learned the hard way just how difficult life can be in the cloud when it moved most of its customer-facing applications to a public cloud service provider in 2010. Sharing IT resources with other tenants resulted in hardware failures and slow response times, leading Netflix engineers to develop its own software architecture that would allow each application in the cloud to succeed, even if related systems failed.11

Slow response times are just some of the challenges organizations can face when moving their HR applications into the cloud. In 2010, Gartner conducted a survey of companies that had transitioned from their SaaS solution back to an on-premise solution, and found that dissatisfaction with the high cost of SaaS ownership was one of the main reasons for the switch, along with high integration requirements. Other reasons included poor performance, increased data security requirements, scalability, and insufficient user adoption.12

In the HR applications space, niche SaaS vendors argue that their solutions will save you money, and provide a lower total cost of ownership over traditional software. While it is easy to assume that a

10 “Netflix Reveals Challenges in the Cloud,” Computerworld, January 10, 2011.
monthly usage charge will be cheaper than an upfront license over the short term, the reality is that SaaS can end up costing as much or more than on-premise solutions:

- Gartner estimates that 90 percent of all SaaS deployments today are not “pay for use”. Like on-premise, organizations often end up paying for more seats than they actually need – in effect paying rent at the SaaS provider’s data center.\(^\text{13}\)

- The CIO Executive Board reports that a lower TCO of up to 20 percent over a three-year period can only be achieved with smaller SaaS deployments (less than 500 users) and highly standardized implementations. Scale, customization, and integration all erode the cost advantages of SaaS to less than 10 percent and in the third or fourth year of a SaaS implementation, costs could swing lower in favor of on-premise software.\(^\text{14}\)

- A January 2011 PricewaterhouseCoopers study on HR and payroll solutions found that there were no demonstrable TCO savings, on average, for companies with 1,000 employees or more using a SaaS model vs. an on-premise solution.\(^\text{15}\)

In light of these findings, Oracle believes that HR technology decision-makers should look at SaaS as just one of many cloud options available to you today. We encourage you to look beyond the myths circulating about SaaS, and evaluate how cloud solutions can work in your technology portfolio to better support your business model and advance your HR and enterprise goals. The total cost of owning a SaaS solution should be thoroughly evaluated, from the cost to integrate disparate systems and need for customized functionality, to your tolerance for risks and costs associated with cloud security, privacy, and exposure to third parties. Other factors to consider in your TCO analysis should be your scalability and performance needs, especially if you are a large and/or global organization; your organization’s ability to manage upgrades, from both a user and infrastructure perspective; your ability to manage multiple vendors and service agreements, especially if you use a variety of SaaS point solutions; and the anticipated lifecycle of the application.

In the following sections, we’ll provide more clarity around some of the top myths being circulated today by niche SaaS vendors, and provide additional factors you might want to consider when evaluating SaaS solutions for your HR organization.

Security and Data Privacy

*Myth: Niche SaaS vendors offer “world-class” data security and privacy*


\(^{15}\) “The Hidden Reality of Payroll & HR Administration Costs,” PricewaterhouseCoopers, January 2011.
Reality: World-class data security and privacy should mean that your SaaS solutions leverage a common security model based on best-in-class database, identity, and security management solutions; and are hosted at ISO-certified, award-winning data centers.

A January 2011 survey by Forrester Research of global IT decision-makers ranked data security and privacy as the number one concern organizations have around adopting cloud computing. This concern resonates strongly with HR executives, who know that HR and talent information is among the most sensitive data an organization can own today, and among the most valuable to criminals. While niche SaaS vendors can provide security within their applications and databases to prevent customer data from being breached or accidently leaked, these security measures are sometimes not robust enough—especially with niche vendors who have a small client base and little capital to work with. Because HR organizations typically own all the user information and roles of employees, they need to carefully evaluate the decision to move employee data to a multi-tenant SaaS provider.

A data security breach isn’t an abstract threat, but an increasing reality for most organizations. According to the Verizon 2010 Data Breach Investigations Report, the number of insider breaches is growing, with malicious insiders involved in 48 percent of cases, an increase of 26 percent over 2009. Even more worrisome, organized criminal groups were responsible for 85 percent of all stolen data in 2010. The potential financial impact to an organization resulting from a data breach is significantly magnified when the potential attackers are both sophisticated and capable of converting stolen data into currency.16

According to the Verizon study, 86 percent of all security breaches in 2010 were accomplished by the use of stolen login credentials, making secure enforcement of employee passwords and single-sign-on policies a must.17 Companies considering using point solutions from niche SaaS vendors must take into consideration the added security risks of implementing and managing Single Sign Ons (SSOs) from multiple vendors. Not having a common security model isn’t just risky, but also costly: Oracle calculates that over a five-year period, the average company with 10,000 employees would spend an additional US$200,000 to manage and maintain system logons, passwords, security roles and permissions, workflows, approval and auditing processes.18

Organizations with global operations must also ensure that their SaaS solutions can be provided anywhere outside of the United States, in order to comply with data privacy regulations in specific geographies which maintain strict data privacy laws. For example, ensuring an adequate level of data protection is an essential compliance requirement for companies operating in the EU; witness France’s March 2011 fine of €100,000 against Google for a privacy breach in its StreetView applications. In

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16 2010 Data Breach Investigations Report, Verizon Risk Team in cooperation with the United States Secret Service,
17 Ibid.
18 Oracle internal TCO calculation.
Germany, failure to comply with the EU data privacy law can result in administrative fines of up to €300,000. And data privacy regulations aren’t just limited to Europe: companies violating Mexico’s new personal data protection law, for example, can expect to pay a fine of US$1.5 million.

Organizations should look instead for SaaS solutions like Oracle Fusion HCM that offer flexible deployment options, including multi-tenant and single tenant options, for an additional layer of security; a common security model across both SaaS and existing applications; best-in-class database, identity and security management tools; and hosting at ISO-certified, world-class datacenters.

Integration

Myth: Niche SaaS vendors offer seamless integration

Reality: Only SaaS solutions built on open, 100% commercially available middleware can deliver seamless integration

According to Gartner, integration – and the challenges stemming from integrating SaaS solutions with existing IT assets – is the number one reason why companies are transitioning back to on-premises solutions after having tried SaaS. In a 2010 survey of 270 organizations, 56 percent of respondents cited the unexpected challenges and costs of integration as the reason why they were transitioning back to on-premise solutions.19

Gartner already estimates that 75 percent of large enterprise SaaS deployments already have at least five integration or interoperable points to on-premises applications.20 In a time when data is so scattered around the globe and application interfaces are so numerous, organizations should and must expect this number to grow. As data volumes explode and the cloud becomes more popular, organizations should look for SaaS solutions built on 100 percent, commercially available open standards, to be able to integrate all their applications and data easily and cost-effectively using IT talent certified with popular development platforms like Java.

Oracle estimates that the average company with 10,000 employees will spend up to $2.4 million dollars over a five-year period integrating and maintaining their HRMS core systems with point SaaS solutions such as recruiting, performance management, learning management, and compensation management.21 These integrations must not only provide support for daily HR transaction processing but underpin the requirements necessary for delivering comprehensive HR

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21 Oracle internal TCO study, 2011.
business intelligence, dashboards and reporting capabilities. Niche SaaS vendors cannot supply a complete “hire to retire” HR view due to large functionality gaps. Thus, organizations must design, code, test, deploy and maintain additional SaaS vendor interfaces linked to an enterprise data warehouse.

One way to reduce SaaS integration cost and complexity is to standardize on a middleware platform built on open, 100 percent commercially available standards, like Oracle Fusion Middleware. Oracle Fusion HCM is built on Oracle Fusion Middleware, providing consistency and speed to the integration process. Using Oracle Fusion HCM, organizations can easily configure integrations to any third-party application. Rather than locking customers into a limited set of custom integrations, Oracle delivers standard integrations that survive upgrades and data model changes.

Lack of Customization

*Myth: Niche SaaS vendors offer business-driven configurability*

*Reality: SaaS solutions should be built on Web services and deliver standard integrations, to allow customers to easily configure, extend, and integrate their applications as needed without costly customizations*

Niche SaaS vendors claim they offer business-driven configurability. Yet their multi-tenant business models mean that customization of individual company needs must be limited, as the SaaS vendor cannot keep customizing the system for each client. According to the CIO Executive Board, most SaaS solutions cannot be customized enough for innovative or strategic uses, and might not be a good fit in industries that use IT intensively, such as financial services or telecommunications, or where innovation drives the business model, such as media, high tech, and pharmaceuticals. Conversely, organizations in sector such as manufacturing, mining and utilities, that prioritize low IT costs and are willing to forgo innovation and customization, may build a portfolio where SaaS applications predominate.  

HR organizations looking at SaaS applications must also consider the need to customize their applications to meet local regulatory requirements. For example, multi-state and multi-national companies must have the capability to customize workflows within the SaaS application to meet local employment law requirements. This is critical from an HR compliance standpoint since labor laws are constantly shifting and HR needs to be able to keep up.

If you are the HR executive of a high-touch, highly customized environment, then "one size fits all" will not work for your needs. If you have a highly variable compensation structure, and your divisional performance and learning needs vary by organization and business unit, then most niche

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22 “Do the Economics of Software as a Service Compute”?, CIO Executive Board, 2009.
SaaS solutions won’t work for you. Your access to business data is through a large, complex application programming interface (API) that is constantly subject to change. You can’t use standard, off-the-shelf tools to help with your enterprise reporting, business intelligence, data warehousing, and other common processes. And the proprietary nature of some niche SaaS vendors’ object models make it very difficult to migrate back to an on-premise solution.

Organizations should look instead for a SaaS solution like Oracle Fusion HCM that is built on Web services and delivers standard integrations, allowing you to easily configure, extend, and customize your applications to meet your unique business requirements, without costly customizations.

Forced Upgrades

_Myth: Niche SaaS vendors deliver innovation with vendor-managed upgrades_

_Reality: Forced upgrades can result in additional costs and complexity_

One of the most controversial policies with a SaaS-only model is the forced upgrade policy. Niche SaaS providers tout their ability to deliver frequent “vendor-managed upgrades” that deliver innovation. In reality, forcing customers to upgrade to the next version of the application on the vendor’s time frame can have negative downstream effects, resulting in additional costs and complexity. Don’t mistake the frequency of updates as evidence of innovation. In many cases niche vendors are playing “catch up” and frequent updates are a function of the incompleteness of the applications. The real value is in the functionality that the upgrades offer, not their frequency.

First, if the vendor does not manage the testing and QA process well, new releases can be unstable and existing features can stop working correctly. This is actually one of the more common issues with some talent management vendors who are enforcing the automatic upgrade policy. Beyond the direct issues that application errors cause, they can also erode confidence and usability across your user base. As a result, any benefit achieved from new features can be more than offset by negative consequences.

Second, with forced upgrades re-training the user community is constantly required. New releases often change how an important part of the application works or in some cases it can even update the entire user interface. As a result, users often require re-training on how to use the new version of the application. The hidden cost of a forced upgrade policy is not inconsequential. For large organizations with thousands of users, constant training and re-training can be very expensive, and any estimated cost savings with a SaaS solution can disappear. Oracle estimates that the costs to an average company...
of 10,000 employees to retrain users on a new HCM application run $104,000 for the first year and up to $375,000 over a five-year period.\textsuperscript{23}

Third, forced upgrades result in added overhead for administrative change management. When an application upgrade is applied, it can not only change how an end-user feature works, but also change how a core process in the application works. This can result in significant change management on complex and established processes within an organization. For example, updates to a compensation planning cycle may require that compensation administrators restructure their existing plans to work with the new application release. These requirements can require significant effort on the part of your organization.

Organizations should look for enterprise-grade SaaS solutions like Oracle Fusion HCM that offer the option of customer-managed upgrades, based on your upgrade time table, budget, and business needs.

**Performance and Reliability**

*Myth: Niche SaaS vendors offer a high-performance, sustainable IT infrastructure*

*Reality: Customers will increasingly be responsible for managing the performance of their SaaS applications, so look for a SaaS vendor that delivers enterprise-grade performance and world-class application performance management tools*

Performance issues with SaaS applications were the third-most cited reason why companies moved back on-premise from their SaaS solutions, according to the Gartner 2010 survey.\textsuperscript{24} Because SaaS vendors rely on the internet to deliver their applications, the performance of the application can be impacted by the geographical location and number of users accessing the SaaS server -- especially during peak traffic hours -- to the types of technologies end users use to access their applications, from ISPs, desktops, and laptops, to web browsers and mobile phone platforms.

According to a 2010 *InformationWeek* survey, three-fourths of SaaS customers rely on their SaaS vendors’ performance information to monitor performance. Because business managers at niche SaaS firms can’t measure service levels accurately inside their customers’ operations, *InformationWeek* predicts that it will become increasingly incumbent upon customers to monitor and manage their own performance issues with SaaS applications.\textsuperscript{25} This means that your IT organization will need the

\textsuperscript{23} Oracle internal TCO study, 2011.


necessary tools to manage both IT performance and end-user performance at multiple levels, from bandwidth availability to application performance.

Enterprise-grade SaaS vendors should not only deliver high performance and availability (>99.5% uptime), but should also provide customers with comprehensive application performance monitoring and management tools to ensure that their SaaS applications run with the highest levels of performance, reliability, and consistency.

Oracle Fusion HCM offers all this and more, including 24 x 7 access to Oracle engineers; high availability via automatic monitoring and diagnostics, as well as predictive incident management tools; and robust and redundant solutions to ensure the rapid prevention, detection, and recovery from outages. Because all Oracle Fusion Applications are built on Oracle Fusion Middleware 11g, IT organizations can leverage the single management console in Oracle Enterprise Manager 11g to manage their end-to-end cloud application environments, from set-up, testing, and change management, to proactively performing system health checks and delivering 24/7 uptime.

Lack of Global Functionality

Myth: Niche SaaS vendors offer global capabilities

Reality: Look for a SaaS vendor that can support complex global and local scenarios, and can easily integrate with third-party pay and benefits systems

Although niche HR SaaS vendors tout the fact that they can serve global customers, it’s a fallacy to think that small vendors that started only a few years ago and only focus on one or two continents have the ability to support truly global scenarios. A best of breed SaaS vendor can have its solutions designed with multiple languages, complex org structures, multiple accounting practices, tax codes and pay regimes in mind, but that’s a far cry from understanding the complexities of truly international business scenarios.

Some of the best known HR SaaS vendors do not offer true global capabilities; rather, they offer limited translations and do not provide regulatory support globally. Because local data protection mandates are complex, international support doesn’t come from adding one or two data centers outside the United States. Lack of support for non-U.S. payroll means customers must pay to build a custom interface to their payroll provider, whereas enterprise-grade SaaS solutions like Oracle Fusion HCM deliver this functionality out-of-the-box.

Vendor Management

Myth: Niche SaaS solutions reduce IT cost and complexity

Reality: The limited product footprints of most niche SaaS vendors means more cost and complexity
According to Forrester, IT organizations are pressuring HR organizations to reduce the number of vendors supported to lower costs.26 But the limited product footprints of niche SaaS vendors means that HR organizations using these best-of-breed SaaS solutions will have to deal with multiple systems and all that entails, from learning multiple user interfaces, handling multiple upgrades, and negotiating and maintaining multiple contracts.

Fragmented HCM solutions create problems for HR business process professionals, from employee master data that is out of sync across various systems, to lack of consistent, quality talent information on employees. According to new research by PricewaterhouseCoopers, utilizing a common vendor or solution to manage multiple HR functions can deliver tangible cost efficiencies; companies using multiple vendors spend 18 percent or more on average to administer these functions. Organizations outsourcing multiple functions to a single vendor see even strong cost efficiency – 32% on average – versus organizations using a multiple vendor or “best of breed” approach.27

Niche SaaS vendors also claim that the business organization has more control over SaaS applications, including procuring, configuring, and paying for them. This enables the business organization to be more responsive to end-user needs; however, it also has the potential to create inconsistent SaaS deployments across the enterprise, along with integration challenges. For example, SLAs for different vendors will be separately negotiated across the enterprise with inconsistent provisions for key issues such as uptime reliability, disaster recovery, and or data ownership. Vendor management issues include communication protocols, internal contract ownership, and risk mitigation strategy for vendors going out of business, and more.

Organizations not able or willing to shoulder the cost and complexity of managing multiple vendors and multiple service level agreements should consider SaaS solutions from a vendor with a comprehensive set of cloud offerings in both the HCM space and across the entire enterprise software spectrum, such as Oracle.

Introducing Oracle Fusion HCM: Redefining the Total Cloud Ownership Experience

With the introduction of Oracle Fusion Human Capital Management, you now have the ability to leverage the most complete suite of global core, workforce management and talent management applications in the cloud – all backed by the power of Oracle. Built from the ground up to help you do things your way, know your people better, and work as a team, Oracle Fusion HCM rethinks the business of HR to provide value to every person in your organization – from HR professionals to employees and managers.

Oracle invested over nearly 5 years of research and development, with the direct involvement of thousands of HR practitioners and HR IT experts, to design next-generation HCM applications that deliver role-based intelligence and information at your fingertips. Areas like performance management, for example, have been re-designed to move away from the administrative tracking of papers, forms, and ratings and move towards a strategic growth and development activity that incorporates kudos, feedback, and ongoing goals.

Whether you choose one module or the entire suite, Oracle Fusion HCM is designed to coexist with your current applications portfolio to deliver innovation without disruption. With Oracle Fusion HCM, you’re in the driver’s seat, with the power to deploy your solutions as a service, on demand, or on premise – all backed by industry-leading Oracle innovation.

Complete Solutions

Since 2005, Oracle has invested $20 billion in internal R&D and $50 billion in 70+ acquisitions to create the industry’s most comprehensive portfolio of best-in-class enterprise and industry-specific applications that all run on a complete stack of software and hardware. Today, Oracle is the leader in HCM solutions, ranked first in the industry in HRMS, Benefits, Employee and Manager Self-Service, Talent Management, Learning Management and HR Business Intelligence.

Building on this experience and market leadership, Oracle Fusion Human Capital Management (HCM) delivers a complete suite of human resource and talent management applications, all available as Software as a Service. Unlike niche vendors that focus only on a few specific modules, the breadth of Oracle Fusion HCM enables you to confidently create a sustainable applications blueprint that can adapt as your business needs change.

http://www.cedarcrestone.com/research.php
Table: Oracle Fusion Human Capital Management Applications

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<th>Oracle Fusion Human Capital Management</th>
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<tr>
<td><img src="image" alt="Global Human Resources" /></td>
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<td><img src="image" alt="Payroll &amp; Benefits" /></td>
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<td><img src="image" alt="Talent Review" /></td>
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<td><img src="image" alt="Workforce Directory Management" /></td>
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<td>HCM Foundation and Profile</td>
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In addition to traditional core and talent modules, Oracle brings to the market groundbreaking HCM functionality through Talent Review, Network at Work and Workforce Predictions, along with the fully actionable organization chart in Workforce Directory Management. Talent Review automates the manual and labor intensive talent review board preparation phase and takes the talent discussion to the next level through an interactive dashboard. Network at Work provides an industry leading collaborative framework that allows workers to build their own internal social network and connect with other domain experts and colleagues with similar interests. And Workforce Predictions – the first truly predictive HCM application - uses indicators, current and historical, to predict performance and attrition, determine corrective action through “what if” scenario modeling, and provide the ability to implement that corrective action.

**Embassy-grade Security**

World-class data centers with embassy-grade security are the backbone of your Oracle Fusion HCM SaaS deployment. The data centers are powered by award-winning Oracle technology such as the world’s most secure database and the fastest growing identity management suite to ensure data confidentiality and integrity. ISO 27002 aligned security controls are tested annually and are certified against the requirements of industry mandates and standard-setters including HIPAA, SAS 70 Type II, DOD, NIST, and Federal Zone certifications.
**Simplified Integration**

The ability to easily integrate your on-premise applications with Cloud applications is a business imperative. Oracle provides pre-built integrations from Fusion Talent Management to PeopleSoft, E-Business Suite, and JD Edwards HR systems. Additionally, unlike niche or legacy solutions that are built on proprietary toolsets, Oracle Fusion HCM is built on 100% open standards. You reap the benefits of lower cost integrations through the use of standard tools and access to a large IT talent pool trained on the most current engineering techniques.

**Highest Levels of Performance and Reliability**

Oracle Fusion HCM customers who choose a SaaS service model benefit from high performance and availability, 24x7 access to Oracle engineers, comprehensive production assessment processes, and high availability via automatic monitoring and diagnostics as well as predictive incident management tools. Robust and redundant solutions ensure the rapid prevention, detection and recovery from outages. Both data and application synchronization are provided while maintaining consistent service levels at both the primary and secondary sites.

**Ease of Customization, Extensibility**

Oracle Fusion HCM has been designed to meet the majority of your business requirements, but your business is unique so there are times when you may need to tailor your applications to better meet your requirements. Leveraging Oracle Composers, you can easily make changes to the user interface, business processes, and business intelligence reports without the need for significant IT intervention. Your extensions are upgrade safe – as your Fusion HCM applications are upgraded to the latest release, your extensions will be preserved.

**True Global Functionality**

From multiple assignments to global transfers, Oracle Fusion HCM is built to support your global workforce and the entire employee lifecycle in a single, integrated application. Workers can be on multiple pay and benefits systems, including third-party systems that are seamlessly integrated into Oracle Fusion HCM. Organizations can quickly address their global business needs while ensuring security and compliance at global and local levels. Robust global, enterprise-wide structures support legislative, regulatory, and organizational requirements out of the box.

**Single Code Line**

Oracle Fusion HCM is uniquely architected on a single code line across both SaaS and on-premise deployment models. This means that you have the flexibility to move from a SaaS model to on-premise if your business needs change in the future.

**Latest Innovations**

The SaaS delivery model means that you’re always on the latest release so you never have to wait for the latest innovations. Oracle will deliver significant enhancements on an on-going basis to ensure that
you are always using the very latest in technology innovations and application functionality. Service delivery is accomplished using ITIL-based processes, tooling, and automation specifically designed for applications. You can be sure that Oracle’s software delivery capabilities are comprehensive, measurable, and can be easily integrated with your existing processes.

Complete Choice

Fusion HCM is part of a larger ERP ecosystem of Fusion applications that cover all areas of business like financials, supply chain and CRM. And only Oracle gives customers the option to deploy these modules in multiple ways, either as a service, hosted at Oracle or with a third-party provider, or on-premise.

Options on how to deploy the software also figure into your TCO calculations, and here Oracle provides customers with a range of deployment choices. You can deploy Fusion HCM on-premise, through a hosting partner, or in a SaaS environment, with both multi- and single-tenant options. We do this through a proven approach tested and used for years with Oracle On Demand applications such as CRM On Demand, the second largest CRM application in the cloud. And if your business needs change, you can easily transition from one deployment model to another, and back again as needed.

Table: How Oracle Fusion HCM Stacks Up Against the Competition

<table>
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<tr>
<th>Delivered Functionality</th>
<th>ORACLE</th>
<th>Other SaaS HCM Vendors</th>
<th>Legacy ERP HCM Vendors</th>
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Oracle’s Fusion applications were designed with the user in mind, to give customers flexibility to decide how they do their work. Your employees can personalize their experience without involving IT. Menu options being displayed can be changed, boxes can be renamed, and items on dashboards can be reordered, all to better suit how your users like to work. Equally as important, business processes can be updated by super-users as needed, again without the need to involve IT, and these changes are “upgrade proof”. Additional fields can be added to processes, or steps removed or changed, and these changes will remain in place as Fusion is updated and upgraded, so you won’t lose what makes your
business unique. And any new fields added to processes fully extend throughout the system and reports.

Although Oracle Fusion HCM represents a leap forward in HCM capabilities, organizations don’t have to sacrifice their current HCM investments to take advantage of the new features. Oracle’s “coexistence” strategy allows enterprises to gradually introduce individual Oracle Fusion HCM modules, such as Oracle Fusion Talent Review, Oracle Fusion Compensation and Oracle Fusion Performance Management, into their Oracle E-Business Suite, PeopleSoft, and JD Edwards environments (see Appendix B for the complete list of Oracle Fusion HCM modules).

Customers can leverage Oracle Fusion HCM offerings such as Oracle Fusion Talent Management, to take advantage of Fusion’s role-based user experience, built-in collaboration and innovative features. With delivered integrations to PeopleSoft 8.9 and Oracle EBS 12.1, Oracle offers an out-of-the-box solution to meet the needs of today’s talent-focused enterprise. In addition, organizations can configure integrations to other versions of Oracle HCM software or other 3rd party HR systems of record through the use of standards-based tools. Oracle partners such as Infosys, Wipro and Deloitte are well versed in Fusion integrations and can assist in this area.

Additionally, Oracle remains committed to its Applications Unlimited policy, continuing to invest in the development of our E-Business Suite, PeopleSoft and JD Edwards HCM applications, providing even more choice for customers through upgrades and enhancements that can be implemented as desired.

Conclusion

Oracle has 30+ years of history listening to customers, responding to their needs, and anticipating their future requirements. Our management team has met with thousands of customers worldwide to discuss how we can best improve the enterprise software experience for you. Five years ago, when we first began designing Oracle Fusion Applications, you told us you wanted more innovation, less complexity and customization, and a lower total cost of ownership. You also told us you wanted more choice in how and when you transition to next-generation technologies — choices based on your technology strategy and your unique business needs.

With Oracle Fusion HCM, Oracle has not only responded to your requests, but addressed your business and organizational needs with revolutionary applications and functionality that no other HCM vendor can match. With Fusion HCM, we’re helping you rethink the business of HR with next-generation functionality for both core HR and talent management, along with completely new, innovative applications like Oracle Fusion Talent Review, Oracle Fusion Network at Work, and Oracle Fusion Workforce Predictions, all designed to help you optimize your talent and empower your workforce. Equally as important, all this exciting new technology can be accessed when and how you need it, with modular solutions to address specific business challenges, or an entire suite — all architected to run seamlessly on the cloud, on premise, or in a hosted environment.

No other enterprise software vendor has invested as much as Oracle in delivering value to customers in the form of open, standards-based solutions that reflect how you want to work and how you want to
run your business. No other enterprise software vendor offers customers as many paths to evolve to
the next generation of enterprise software as Oracle. And no other enterprise software vendor is as
committed as Oracle to helping customers transform their businesses and differentiate themselves in
the marketplace.

We recognize you have a choice in Human Capital Management vendors, and we want to make that
choice simple for you. So when you think about HCM software think Oracle: The leader in HCM
applications – now available as a service.
Appendix A: Designing Your Cloud Roadmap: Key Questions to Ask

As you evaluate cloud vendors and solutions and design your cloud roadmap, Oracle has prepared a number of questions you can ask your internal team – and your SaaS vendor – to determine whether the solution is truly enterprise-grade:

Questions to Ask Your Team:

- What are you trying to accomplish with the cloud -- i.e., where are the optimal workloads in your organization that would benefit the most from a cloud infrastructure?
- Is your business model dependent on technology-driven innovation? How important is the ability to customize or extend business processes to your ability to innovate and achieve competitive differentiation?
- How sensitive is your business and employee data? Is your industry subject to specific data security and privacy issues beyond those enforced by U.S. and foreign data privacy laws?
- How are you structured organizationally – do you have a business need to run multiple instances of your database for either connectivity or data privacy reasons? And can the cloud vendor easily support a more complex business model?
- Is deployment speed important to your business case?
- Is the anticipated life of the application less than three years? If it is more than three years, have you considered an on-premise solution?
- Do you have the option to move back to on-premise if your needs or goals change?
- Do you have internal service level agreements in place? Will a new SaaS service-level agreement conflict with any already in place in your organization or enterprise?
- Do you have staff available to manage and monitor one or more SaaS vendor agreements?

Questions to Ask Your SaaS Vendor:

- How viable is the cloud vendor – years in business, financial status, etc
- How much of the solution is complete? Will the solution meet your business requirements without multiple partnerships for core functions?
- Does the vendor have referenceable implementations? If so, do they match the scale of your planned deployment?
- Does the cloud vendor use an open standards development platform?
- How flexible is the technology? Can business processes be customized or personalized without IT involvement?
- Does the solution deliver integration or partnerships?
• Can integration be supported by standard APIs?

• Can you easily access your data for historical and predictive analysis? How many years of data are available for analysis?

• What level of data security does the vendor offer at the application level?

• Are all customers’ data kept in one shared database?

• Does the vendor offer a more "secure" version of a SaaS solution that provides a dedicated environment?

• Does the vendor meet all the regulatory requirements associated with the data, including international data privacy regulations?

• Is the vendor open to a security audit by an external agency?

• How successful has the vendor been at meeting SLAs?

• Will the vendor provide data migration support?

• Does the vendor have clear channels for communication regarding service and performance issues?

• If you have global operations, is the cloud vendor able to provide 24x7 access and help desk support globally?

• Does the vendor provide localized compliance and multiple languages?

• Does the application deliver a consistent UI and provide consistent processes, workflow, etc across core HR, payroll, compensation, benefits, performance management, talent management, etc?

• Does the application allow you to use a common security model, or will employees have to sign on using an additional password?

• Does the application standardize processes and user interface today beyond HCM – such as core financials and manufacturing – and does it provide the option to further standardize as business needs dictate?
Appendix B: Oracle Fusion HCM – List of Applications

- Oracle Fusion Benefits
- Oracle Fusion Compensation
- Oracle Fusion Global Human Resources
- Oracle Fusion Global Payroll
- Oracle Fusion Goal Management
- Oracle Fusion International Human Resources and Payroll Kit
- Oracle Fusion Network at Work
- Oracle Fusion Payroll Interface
- Oracle Fusion Performance Management
- Oracle Fusion Talent Review
- Oracle Fusion Total Compensation Statement
- Oracle Fusion Transaction Business Intelligence for Human Capital Management
- Oracle Fusion Workforce Directory Management
- Oracle Fusion Workforce Lifecycle Manager
- Oracle Fusion Workforce Predictions