Revolutionizing Enterprise Application Deployment:
How SaaS and the Next Generation of Technology Can Change the Game

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A New Technology Curve Changes How Business Applications Are Delivered

Workday is the leader in enterprise-class, software-as-a-service (SaaS) solutions for managing global businesses, combining the lower cost of SaaS with a modern approach to applications. By offering solutions that are less complex, more cost-effective, and simpler to deploy, Workday is transforming business applications altogether.

How is Workday changing the deployment game? Gone are the elongated implementations and endless upgrade cycles experienced by customers of traditional on-premise ERP vendors. With Workday, companies don’t need to purchase additional hardware and servers, install and tune database software, or physically install the application software. In fact, because Workday implementations are executed in a fundamentally different way than traditional ERP implementations, Workday refers to “implementations” as “deployments” to emphasize the differences.

“The concept of software-as-a-service (SaaS) took hold at a time when IT executives were getting supremely fed up with the ballooning costs of packaged enterprise software. Not only did they have to shell out thousands of dollars just for the licenses, but they also had to spend tens if not hundreds of thousands more to implement the software. There were the consulting fees. And the training costs. And the extra infrastructure that was required to run the software in addition to ongoing maintenance fees. Thus, SaaS emerged from the wreckage of botched multimillion-dollar ERP and CRM implementations as a radical alternative to traditional software licensing models. SaaS promised easier, speedier and cheaper implementations.”

CIO Magazine, May 15, 2007

This whitepaper discusses in detail the differences and advantages of Workday deployment.

SaaS represents a technology evolution that will eventually displace ERP client-server models, much like ERP client-server models displaced mainframe models in the 1990s. Today, SaaS technology enables a faster and more cost-effective access to or engagement with business applications, something that just wasn’t possible in the ERP world.
Workday’s Core Technologies Make It Possible

How does Workday do it? It’s simple, really. In order to take full advantage of the SaaS delivery model, Workday realized it had to develop its applications on new core technologies that addressed the key weaknesses of legacy ERP applications. Workday could not simply create another relational database management system (RDBMS). It had to be radically different. It had to be:

- Powered by a multi-tenant architecture
- Developed on an object-oriented database
- Built with a Service Oriented Architecture (SOA)
- Designed to be a global system of record

Multi-Tenant Architecture

At the heart of many of the benefits of Workday’s SaaS model is a key innovation—a multi-tenant architecture in which all users and applications share a single, common infrastructure and code base that is centrally maintained. The economies of scale and advantages achieved by this fundamental difference are astounding. With Workday’s multi-tenant SaaS delivery model, companies don’t need to allocate capital to purchase servers, storage, databases, or software licenses. Nor do companies need to allocate headcount to install, tune, and maintain the software required to bring the applications to life. More importantly, companies don’t need to allot resources to maintain, manage, patch, fix, test, and upgrade the business applications that sit on top of the expensive infrastructure. With Workday SaaS solutions, everything is the responsibility of Workday.

Object-Oriented

Older ERP business applications rely on a relational database with thousands of tables, which forces organizations to fit their business to the system rather than fitting the system to their business. Implementations of these relational database-centered systems can be restrictive, complex, and expensive. Once installed, these systems are difficult and costly to upgrade or change as a business changes (e.g., reorganizations, mergers and acquisitions, divestitures, business process changes, etc.).

Workday is a pure object-oriented application built from the ground up for the Web. All Workday applications leverage the Workday Object Management Server (OMS), a modern development and run-time environment for all business logic. Workday objects model actual parts of your enterprise (e.g., persons and organizations) and the business events that happen to them (e.g., hiring or compensating). The object model is superior to traditional relational databases because it does three things very well: (a) it closely models the real world, (b) it can be easily adapted to changes in the business over time, and (c) enables Workday to fundamentally change the speed at which solutions are deployed.

Here are some specific examples:

- **Simple Reporting**: Relational databases use thousands of tables, making it difficult to obtain comprehensive reports and analysis without special technologies and technical resources that can do complex “table joins.” Workday’s “Actionable Reporting” and delivered business intelligence analytics are built into Workday’s logic, and users can access and act upon Workday data with little or no training or special complex reporting tools.

- **Easier Updates**: The sheer volume of database tables and millions of lines of code make legacy ERP systems difficult to change and upgrade. The Workday update process is simple, quick, and completed by Workday staff.
• **Business Processes Framework:** Workday starts with a set of more than 100 "pre-optimized" best practices that are built into the solution, accelerating the implementation process and providing a starting point for any additional configuration.

• **Configurability:** The cost of changing business processes over the life of the project (or the lifecycle of owning the product) is near zero, which allows Workday customers to modify, change, and configure business processes quickly, simply, and without technical resource dependencies.

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**Service Oriented Architecture**

For years, business and IT professionals have faced a difficult reality: Every on-premise business software implementation comes saddled with an ocean of costly and complex integrations that require huge programming efforts. Furthermore, traditional on-premise enterprise software addresses integration as an afterthought, leaving customers with a patchwork of application interfaces and custom code to knit together.

Workday was started with the idea that integration should be a core design criteria, and connectivity to other applications and information resources should be easier than it is today. Integration should be handled by the provider (Workday) as a service, not as another endless IT project for customers. And because Workday delivers solutions on demand, the industry is finally receiving standards-based, packaged, and customizable integrations delivered as a web service.

Realizing that not all external applications are “Web service ready,” Workday also hosts a Service Oriented Architecture (SOA) infrastructure within its data center.

This hosted SOA infrastructure provides connectivity to different applications—utilizing a variety of technologies—in order to exchange data. This infrastructure allows integrations to be built, managed, and supported by Workday, driving down the cost and time needed to develop a wide spectrum of integration solutions.

**Single Global System**

Workday has been designed at its core to address the global needs of multinational companies. By contrast, legacy ERP applications fundamentally fail to effectively support modern global business because their data model is not inherently global. ERP systems were initially designed and delivered as single-country solutions to meet the specialized demands of a local market. As providers saw opportunities to expand by meeting the worldwide needs of current customers, they began adding local functionality to the application core. Some developed a quasi-global architecture that differentiates between core and local functionality. Other ERP providers expanded globally by creating one-off products tailored to local markets, related to, but physically separate from, the core product. Neither of these approaches incorporates a global data model; this prevents a true, worldwide view into transactions, reports, and all aspects of operations.

Workday is designed to support multiple languages, currencies, and business entities in a single global instance, enabling customers to track and manage business activity locally while providing a view of the organization as a single consistent entity.

• **One System for your Entire Global Organization:** Workday supports employee self-service in multiple languages, so all of your employees can utilize the system in their native language. Workday also supports specific country formats for various types of personal data, including national IDs—no more need for disparate systems or implementations for workers who speak different languages.
• Support Multi-currency Transactions: Expense reports, accounts payable, accounts receivable, and worker compensation can all easily be tracked in actual currency numbers and easily translated into your corporate currency for consolidated view of your effective total spending and receiving.

• Compensate your Global Workforce: Create and assign unlimited compensation plans and allowances based on global and/or local requirements. View your team’s compensation in a single currency while you suggest merit or bonus amounts in each employee’s local currency.

• Accurately Represent and Understand your Company Structure: Workday’s advanced organizational tools help companies model their organizations, entities, locations, and cost centers as they really exist. Getting an accurate headcount report for all full-time and part-time employees on your global team is as easy as running a prepackaged report. Workday can provide faster, more accurate analytics because this information is not spread across multiple systems.

Workday: The Opposite of ERP

Changing the Core

Workday’s core technology and architecture allow deployments to be executed in a fundamentally different way than traditional ERP implementations. Today’s business leaders are demanding their enterprise software be quick to deploy, adaptable to change, easy to use, and globally accessible.

Look at the track record of ERP installations: According to a recent study of more than 1,300 ERP customers by Panorama Consulting, an independent ERP consulting firm, nearly two out of three ERP projects were over budget and more than 90 percent took longer than expected¹. The world of technology and business consulting is tainted by horror stories of ERP projects gone wrong. Companies such as Hershey’s, Nike, and Goodyear Tire & Rubber have filed widely publicized lawsuits against ERP software vendors because of failed implementations. In cases like Hershey’s, lawsuits were filed because they couldn’t ship product or their entire business shut down because of the software implementation².

Why are traditional ERP vendors failing to deliver? In many cases, it’s simply because of the rigid nature of the ERP solution being implemented. During the time it takes to begin a long, complex ERP implementation, a company’s business requirements can change multiple times. However, many ERP systems lock in the original business requirements, which makes change nearly impossible and very expensive. When rigidity is combined with an inefficient ERP implementation design that must accommodate burdensome infrastructure requirements, customized functionality, rigid technical architecture, and dated software design, the problems grow exponentially. Making matters worse, large ERP vendors and consulting firms generate massive revenue from extensive ERP services—from expensive implementations to high cost/low value annual maintenance. Many of these public companies are facing dwindling software license revenue and searching for new ways to make money. As a result, traditional ERP vendors are forced to squeeze more revenue out of existing software implementations and maintenance. They have no alternative.

Technology isn’t the only barrier preventing the large ERP vendors from evolving; even more substantial is the financial model shift. For traditional ERP vendors, rewriting applications to support a true multi-tenant SaaS model is hard enough, but shifting from perpetual pay-up-front licenses to a pay-as-you-go subscription is an even more daunting challenge.
This ERP implementation model is not likely to change soon, and it operates in direct conflict to what the majority of businesses are looking for today: a reduction in costs, the ability to manage change and respond quickly to the economic environment, rapid time to value, and lower overhead for maintenance and support.

Customization vs. Configuration

In the past, the implementation approach taken by vendors and consulting firms for traditional ERP solutions was designed to create a highly customized and personalized business solution from scratch. While some lip service was given to the advantages of adopting a standard approach during early planning stages, most companies quickly realized they simply couldn’t conduct their business with a static, out-of-the-box ERP solution. As a result, entire teams of ERP implementation and technical consultants would focus on customizing complex business transactions, integrations, and reports within the four walls of each organization.

Customizations are a lot like genetic mutations—they change the underlying code of the system, which in turn makes every update, service pack, upgrade, report, or integration a major challenge. By further customizing each instance on each platform (e.g., IBM, Oracle, Sun, Microsoft) and often for each host country, organizations ended up with a very complex, rigid, costly, and IT-intensive environment. The bottom line is that customizations are the only option within an ERP environment, but the ultimate cost of this necessary evil is immense. In fact, customizations are usually the costliest part of an ERP software implementation.

“Workday’s reorganization capabilities are really hard to do in other ERP solutions and are a proof point of their application’s agility and design principles. Plus, corporate reorganizations and M&A are exactly what’s going on now.”

Jim Holincheck; Vice President Research & HR Applications; Gartner

By contrast, if something is configurable, the existing software can be worked and adjusted to reflect a change. Workday believes enterprise systems should be configurable and reconfigurable at any time—based on business needs, not technology limitations. This means:

- Reorganizing reporting hierarchies without coding or IT intervention should be simple.
- Configuring business processes not only for your company but by organization within your company should be simple and trouble-free.
- You should be able to flexibly track spend and revenue by tagging detail entries instead of asking IT for another chart field.
- All of this should be accomplished without breaking the upgrade.

Workday’s agility allows its system to be changed without altering code or changing database structure. For example, when a team moves into a new organization, Workday disconnects the object representing that team (and thereby all its subordinates) from the first organization and then connects them to the second. Instead of going through multiple systems and searching for every column and row
where individual records are kept, Workday just moves the group. Configurations are made with the user-friendly, intuitive, and powerful capabilities that are built into Workday, which saves customers money, time, and stress. In addition, these configurations empower organizations to be creative in their problem-solving and flexible when trying different solutions.

Remove the Frustration from IT

In traditional ERP environments, IT departments are forced to spend significant time on implementations, maintenance, and upgrade projects that don’t add value to the company’s bottom line. To alleviate this frustration, IT teams are increasingly turning to the SaaS, multi-tenant model in an effort to minimize the time spent on lower-value activities while maximizing the time spent on strategic activities that impact the business. Multi-tenancy enables companies like Workday to deliver one-to-many updates and upgrades, giving customers the most cost-effective model available today. In addition, a SaaS deployment removes numerous burdens—server procurement, installation, patch/fix, upgrades—from the IT organization. By removing these burdens, SaaS enables efficient, rapid deployments with a smaller footprint required from IT.

For companies looking for more cost-effective business solutions, SaaS is a viable option. From the initial deployment to on-going maintenance and update management, the SaaS platform enables companies to deliver cost efficiencies that are not possible in the legacy ERP model.

On average, Workday deployments are 30-50% less than the cost and duration of a traditional ERP implementation.

Workday’s Rapid Application Deployment: Deploy, Optimize, and Extend

Workday’s core technologies and architecture allow Workday implementations to be executed in a fundamentally different way than traditional ERP implementations. In fact, Workday refers to “implementations” as “deployments” to emphasize the difference. Workday is designed to be highly operational immediately; just log in to the appropriate web site and your Workday system is ready to be set up and configured. From delivered business process templates and easy configuration capabilities to “out-of-the-box” business intelligence reporting and packaged integration services, Workday has radically simplified how business applications can be set up and deployed across an enterprise.

Deploy

Workday’s Rapid Application Deployment model starts with the basic premise that every software implementation should leverage a rapid prototyping model. This model should focus initially on delivering solutions to handle the core functional requirements of customers. By delivering high-impact functionality in a rapid manner and enabling on-going configuration and change, Workday customers are able to achieve the fastest time to value possible. Traditional ERP vendors focus sales cycles on flashy bells and whistles with the promise of high value but neglect to reveal the inherent complexity and customizations required to produce the promised features.
Between the time the contract is signed and project kickoff, Workday will work with customers to extract, clean, transform, and load core data into a baseline prototype. Once the customer’s data has been loaded, Workday will overlay the aforementioned pre-optimized best practices. At the project kickoff, Workday’s Day 1 prototype might represent 50 - 60 percent of a fully functional core solution. Workday can then rapidly prototype and configure functionality in real-time with customers. Workday’s Rapid Application Deployment approach typically includes multiple iterations of the prototyping process, with each iteration moving closer to the end goals of a customer’s core business requirements. With each prototype, Workday will work with the customer to include larger groups of reviewers who interact with the solution in an effort to increase the probability of fit while reducing the risk of errors.

With business process and configuration changes made easily and instantaneously, downstream upgrade costs are eliminated; this allows companies to enter production with Workday more comfortable than they would be with a traditional ERP solution. And because Workday is designed to be highly configurable, the need to customize the application has been eliminated. Workday customers are able to move their solution into production faster and quickly leverage the Dynamic Processing Framework to further optimize and extend the core functionality over time—all without having to budget and upgrade the version of the system.

Optimize and Extend
Workday’s initial deployment focuses on the core business requirements. Because the solution is designed to enable on-going change, most Workday customers manage any changes by further optimizing the functionality delivered when the customer goes live. In the past, companies spent months or years getting traditional on-premise ERP applications into production, a strenuous effort that often left companies tapped out. The thought of further customizing the already vulnerable solution was typically ruled out. Major upgrades were enough to worry about; optimizing a business process, adding workflow, and enabling an end user to interact within the business process were additional daunting tasks for the traditional ERP solution and IT departments.

With Workday, all system updates are made on an ongoing basis, which means customers are always on the most current version of Workday. When companies choose Workday, resources can be redeployed to focus on business innovation, change, optimization, and value rather than customization and maintenance. Additionally, the value of Workday’s solution continues to grow with each subsequent update—new language support, features, and capabilities are included in the subscription at no extra cost or effort.

Because of the multi-tenant SaaS delivery model, Workday is constantly motivated to maintain and exceed customer expectations. With SaaS, there is a focus on proving the value and maintaining customer satisfaction. With traditional ERP, the vendor is only motivated to collect maintenance fees. In addition to the superior level of customer service, Workday also offers Optimization Services, a services solution designed to drive optimal value from the customer’s investment in Workday.
Service Delivery Model

The Workday Rapid Applications Deployment approach takes one of two different and distinct delivery models based on the customer’s core requirements:

- **Workday Solution Center**: A centralized, structured, full-service “turn-key” delivery model
- **Onsite/Virtual Teams**: A more “traditional” consultative approach

An example of a company choosing the Workday Solution Center approach is StoneRiver (formerly Fiserv), which came to Workday with a complex business requirement. They were being divested from their parent company and needed to be off their existing system and up and running on a new system in roughly two months. They had resource constraints, specific functional requirements, and needed to be into production quickly. They also preferred a structured deployment schedule that Workday would help control and manage. Workday successfully brought StoneRiver into production with core business functions in 38 business days, from kick off to go-live. This was accomplished by heavily leveraging the Workday pre-optimized business processes.

For customers like StoneRiver, the Workday Solution Center makes the most sense because it focuses on cost containment, a rapid time to value, knowledge transfer, and developing a Workday expert on the StoneRiver team. The average deployment timeframe within the Solution Center is approximately 90 days with 100 percent of projects coming in on time and on budget. Notably, several customers have come in under budget, an accomplishment that’s unheard of with traditional ERP implementations.

In fact, a traditional ERP implementation represents the highest risk and highest cost model—almost two-thirds of projects were over budget and less than 10 percent on time.

For customers who prefer to deploy the solution on their own timeline and schedule, Workday offers a more traditional, equally flexible delivery model. Customers still leverage the Workday Rapid Application Deployment methodology, but they are able to adjust the schedule and milestones to meet their specific business needs.

An example of a company choosing the more traditional deployment approach is Websense, a customer that came to Workday with an experienced deployment team, a specific set of functional requirements, and the desire to achieve a rapid time to value for their deployment. Websense needed to be up and running on a new solution in roughly three months. As opposed to StoneRiver, Websense had a desire to manage the deployment themselves with Workday providing guidance. Workday designed a structured deployment schedule that Websense would control and manage. Together, Workday and Websense worked arm-in-arm to bring Websense into production with core business functions (including Compensation Management, Performance Management, Employee and Manager Self Service, and the Core HR business processes) in approximately 90 business days. The “optimize and extend” phase, the next for Websense, will focus on Benefits Administration.
In summary, each service delivery model starts with global Human Capital Management (HCM) functionality and business processes delivered by Workday—remember, this comprises a fully functional core system based on the most current version of Workday HCM and can represent up to 50-60 percent of a complete solution. The Workday team will configure the gap between the pre-configured core application and a customer’s functionality requirements (business processes, organizational structures, tables, reports, etc.) in a fully functional prototype in a matter of weeks. For example, a large company that requires a multi-phased global deployment is able to quickly evaluate a global prototype and then determine the rollout schedule for the functionality based on priority and need.

If required, the global functionality can be further refined and configured to meet individual country or regional requirements in a phased approach or functionality can be deployed across the entire enterprise by leveraging the Dynamic Processing Framework and global baseline.

**SaaS vs. On-Premise**

Numerous surveys and studies have been conducted that compare the cost of on-premise versus SaaS solutions, and the conclusion is obvious: The differences are dramatic in cost, project duration, and overall success of SaaS deployments versus ERP.

In the aforementioned Panorama study of ERP projects, more than 1,300 companies were asked about their experience with their ERP implementation. The results were not surprising: ERP implementation timeframes ran from 4 months to 60 months with an average of 14 months. And the fastest ERP implementation reported still took longer than the Workday average.

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<th>Other Findings from the Study Were Equally Troubling for Traditional ERP Vendors:</th>
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<td><strong>Traditional ERP</strong></td>
<td><strong>Workday</strong></td>
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<tr>
<td>93% of respondents said their implementation ran longer than they planned, with 68% of those respondents indicating the implementation ran MUCH LONGER than planned.</td>
<td>Workday Solution Center has delivered 100% of projects on time.</td>
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<td>59% of respondents said their ERP project went over budget, with 16% saying the project went more than 50% over budget.</td>
<td>100% of Workday Solution Center projects have come in on, or under, budget.</td>
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<td>57% experienced a major operation disruption following their go-live.</td>
<td>Workday has delivered 99.9% uptime over the past two years.</td>
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<td>An average ERP upgrade costs $1.5 million.</td>
<td>With Workday, the cost of an update is included and completed on average in less than 40 hours.</td>
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<td>38% of respondents indicated a lack of employee adoption as the biggest challenge with their ERP implementation.</td>
<td>Workday runs in the user’s favorite browser, which leads to user adoption unmatched with a traditional ERP implementation.</td>
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A Workday deployment is measured in weeks or months, not the years of a traditional ERP implementation. In fact, Workday averages 116 days for deployment, significantly shorter than an extended ERP implementation.
When companies spend significant money to license ERP software, the decision to switch vendors becomes costly. However, with the ERP vendor trend of squeezing more services money from customers—such as the new 22 percent maintenance fees many ERP companies are charging—it’s actually more difficult to justify not making the switch to Workday.

By leveraging the SaaS deployment model, Workday is delivering a completely new paradigm in total cost of ownership that is untouchable by ERP vendors. And it’s important to recognize that Workday is motivated to continuously innovate and provide superior customer service in an effort to keep customers from one year to the next.

**Innovation Is Not Installed**

What if you had the chance to build an enterprise solution from scratch, using today’s best technologies and leveraging all the lessons learned and knowledge of today?

Innovation in our industry has created a fundamental shift in thinking and an evolutionary change in technology: software delivered as a service. Workday has leveraged the new SaaS technology curve and developed configurable, on-demand applications on a multi-tenant architecture. Workday’s underlying technology leverages an object-oriented model, which enables companies to configure business processes, organizational structures, and reports without changing the underlying code, something that is impossible in traditional ERP solutions. From the initial deployment to on-going maintenance and update management, the Workday SaaS delivery model is a smarter choice than the extended implementation model of traditional, on-premise ERP.

“Workday’s architecture is a generational leap from code-heavy architectures of the past, with the potential to free customers from the tyranny of upgrades and application inflexibility.”

Jeff Comport; Vice President Distinguished Analyst; Gartner

**About Workday**

Workday is delivering the first on-demand alternative to ERP, with a new generation of solutions designed to meet the needs of today’s dynamic and global businesses. Built on a completely new model, Workday Human Capital Management and Workday Business Management use the most modern, standards-based technologies to provide an unparalleled level of agility, ease-of-use, and integration capability. For more information about Workday, please visit www.workday.com.

