

Modernizing Application Lifecycle Management Through Software as a Service

An ENTERPRISE MANAGEMENT ASSOCIATES® (EMA™) White Paper
Prepared for Hewlett-Packard

March 2011



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INDUSTRY ANALYSIS & CONSULTING*

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Executive Summary

Software-as-a-Service (SaaS) has become an established technology for companies of all sizes, and its potential value proposition is no longer up for debate. SaaS-delivered services have gone beyond the Proof Of Concept (POC) stage to become mainstream business services. SaaS customers have reported, however, that SaaS adoption is not as easy as it seems, as cross-product integration can be a significant barrier for companies seeking to integrate across applications.

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In the spring of 2011, HP delivered HP ALM on SaaS, an integrated, hybrid Application Lifecycle Management (ALM) solution, which is the latest addition to HP's growing family of ALM products. The core solution is a centralized, SaaS-based platform for managing and automating the application lifecycle from inception to retirement. HP ALM on SaaS integrates with both on-premise and third-party solutions to maximize the value of existing customer assets.

With this solution, HP is addressing many of the challenges confronting SaaS customers. Customers can capitalize on the benefits of SaaS while extending the value of existing on-premise products. This innovative delivery model reflects HP's broad

experience as an ALM vendor with the flexibility to accommodate a wide range of use cases. It also supports diverse development methodologies, organizational models, security and governance requirements across industries and geographies for maximum flexibility and customer choice.

This ENTERPRISE MANAGEMENT ASSOCIATES® (EMA™) white paper details this solution, discusses its positioning within the ALM and Cloud markets, and highlights its alignment within HP's ALM offerings. Finally, it discusses the reasons why this hybrid solution delivers a compelling value proposition for HP customers and prospects alike.

SaaS in the IT Enterprise

Cloud computing, the overlay technology encompassing Infrastructure, Platform and Software as a Service (IaaS, PaaS and SaaS, respectively), has experienced almost unprecedented growth and market acceptance in recent years. In 2007, SaaS was an early mainstream technology, while IaaS and PaaS were emerging as trends.¹ In contrast, the latest EMA Cloud research, published in 2011, finds that 1/3 of companies describe Cloud services as being “essential to” their business, with 77% utilizing SaaS to deliver at least one business service. The top two considerations in choosing a Cloud provider are “security strengths” and “proven performance.”

As SaaS has become mainstream and business-critical, the way companies approach this new delivery methodology has also evolved. Initially regarded as an easy way to procure an application without “going through channels” of budgeting and executive approval, SaaS for the enterprise is now being approached with a level of rigor equal to that of on-premise-delivered services. Seventy percent of companies using Cloud services have Service Level Agreements (SLAs) in place with providers, and over 40% have made changes to their management technologies to address SaaS.

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¹ EMA Research, 2007

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In addition, SaaS solutions must be flexible and powerful enough to adapt to the needs of the enterprise organization, with governance, Quality of Service (QoS) and service levels that meet or exceed those of internally-delivered, enterprise-class applications.

An examination of the most successful SaaS services, such as bellwether Salesforce.com for example, reveals key similarities in the types of capabilities delivered. They span multiple users in a variety of settings across the enterprise and potentially across the globe. While they serve critical business functions, they are not necessarily core to realizing day-to-day revenue. They tend to be relatively complex and expensive to host, deploy and maintain on-premise. These characteristics of the Customer Relationship Management (CRM) software market have propelled Salesforce.com to the SaaS stratosphere, and are equally relevant to ALM.

Both Cloud and SaaS have become fundamental elements within today's IT landscape. While businesses are turning to "private" Cloud more frequently than "public" Cloud as yet (see Figure 1), they are wholeheartedly embracing the efficiency improvements delivered by SaaS. Vendors such as HP are finding that customers and prospects are seeking SaaS-based versions of traditionally on-premise products as a way to take advantage of the "best of both worlds." They want the capabilities delivered by world-class products without the administrative and hosting overhead associated with on-premise delivery. They are also seeking to reduce overall costs, and such cost reductions can be significant.

However, SaaS for the enterprise is significantly different from SaaS for the consumer world. Enterprise customers are seeking production-grade solutions delivered by a trusted vendor such as HP, and such solutions must be secure and reliable. With such products in place, SaaS can enable companies to adapt to changing business drivers more nimbly and in doing so become more successful. SaaS can also help accelerate the pace of innovation by enabling companies to take advantage of world-class product capabilities without lengthy product acquisition, POC and deployment cycles. Finally, easy integration is also important, as it enables IT organizations utilizing point solutions for various steps within the application lifecycle to consolidate on a single unified platform.

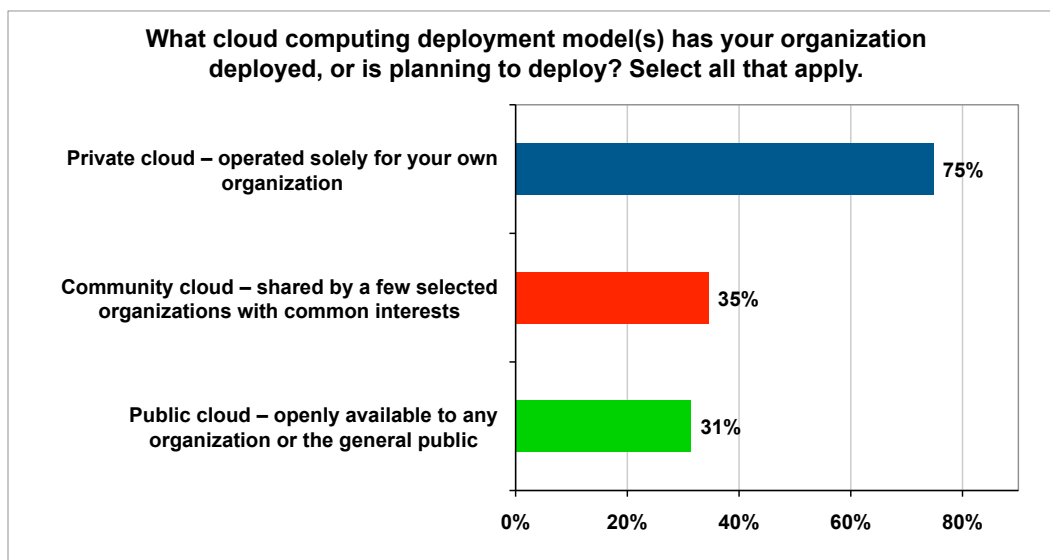


Figure 1: What Cloud computing deployment model(s) has your organization deployed, or is planning to deploy?²

² EMA Research, 2011

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The Changing ALM Landscape

In today's tough business climate, application quality impacts revenue as well as ability to compete and innovate. Nearly 75% of today's companies rely on custom applications to run some aspect of the business. In many cases these applications differentiate one company from another in highly competitive industry verticals.

In a recent interview, one high-tech manufacturer reported to EMA that downtime in critical manufacturing and distribution applications cost between \$750,000 and \$1.5 million per hour in lost productivity and revenue. Yet application management specialists report that outages are network related only 25% of the time – and software-related 40% of the time.

Because software quality has such a high impact on the business bottom line, development organizations have recognized the need to introduce more discipline and control into the software development lifecycle. Production-grade ALM solutions are fundamental enablers for building high-quality software efficiently and cost-effectively.

There are other factors driving the growth of ALM as well. A global economy and a new focus on business agility have driven a paradigm shift in software design, development and delivery. Complex engineering projects rely on processes and teams spanning companies, locations, countries and geographies. Tasks, processes and deliverables impact multiple discrete development projects. Agile methodologies engender new processes, stakeholders and feedback that must be incorporated into requirements throughout the development lifecycle.

Accelerated release and delivery cycles require precise orchestration across teams, processes and locations. In addition, business applications must be delivered at high levels of quality, performance and availability. Finally, business and governance requirements can change literally overnight, and applications must be designed and developed with the resiliency necessary to accommodate a constantly changing business climate.

Clearly, this is a tall order, and many companies are finding that existing toolsets do not adequately support this dynamic landscape. In fact, many ALM-related products currently on the market address yesterday's development-related challenges more effectively than today's.

Fifteen years ago, the software development lifecycle revolved around fixed requirements, in-house developers, "big bang" projects in which hundreds of modules were delivered at lengthy intervals, and stakeholder review/acceptance at the final delivery. As a result, the majority of software projects failed to deliver in terms of cost, timeliness, or functionality.

In contrast, today's practices rely on evolving requirements, distributed development teams, ongoing stakeholder input and incremental delivery. This evolution is summarized in Table 1. Tools are the "backbone" of these collaborative processes, and changes to ALM practices necessitate changes to toolsets. Confronted with new tooling requirements to support modernization, many companies are finding SaaS-based delivery to be an increasingly compelling option. HP's new ALM solutions support this paradigm shift with hybrid SaaS and on-premise solutions addressing the entire software lifecycle.

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Yesterday	Today
Stability	Agility
Structured ALM practices siloed by discipline (Development, QA, etc.)	<p>Team collaboration and changing requirements necessitate improved traceability among project artifacts, adherence to established processes and workflow</p> <p>Dynamic and real-time access to project state through KPIs</p> <p>Ongoing stakeholder input, evolving requirements across the life cycle</p>
Point development and testing solutions	Solutions integrated to one central repository
Teams co-located, worked in isolation Issues handled through whiteboards	Ability to accommodate and facilitate geographically distributed teams with external contributors (suppliers)
Rigid, sequential ALM methodologies	Flexible, iterative ALM methodologies
Monolithic applications	Composite applications

Table 1: Evolution of ALM Practices

ALM Tools Evolution: SaaS and HP's Approach to Application Lifecycle Management

Capitalizing on these trends, HP has become a key player in the ALM and SaaS/Cloud market. HP Quality Center (QC), the first product in the ALM suite, was initially introduced in 2004. The product has continued to build momentum, particularly in the telecom and financial services verticals. In the 2008-2009 time frame, SaaS for IT management shifted into high gear. HP customers began asking for a SaaS ALM option, while also seeking a viable route to future on-premise, if required.

HP ALM on SaaS, the latest incarnation in the ALM family, is a centralized platform for managing and automating today's application lifecycles. It provides a foundation for requirements management, iterative development cycles, distributed teams, stakeholder and code reviews, software development management, and a host of other capabilities supporting application development using modern lifecycles.

It is delivered as a hybrid SaaS/on-premise solution for maximum flexibility (see Figure 2) and customer choice. Many HP customers already have significant investments in ALM-related toolsets and are seeking ways to migrate on-premise to SaaS-based solutions over time. HP ALM, for example, an on-premise solution, is a different, complementary product.

HP ALM on SaaS encompasses five hosted solutions, which easily integrate with existing on-premise HP solutions and with third-party products.

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HP ALM on SaaS encompasses five hosted solutions, which easily integrate with existing on-premise HP solutions and with third-party products. The SaaS portion of the hybrid environment includes:

- *HP ALM 11*: A gold-standard ALM solution that seamlessly integrates activities, artifacts and stakeholders across the software delivery process from project proposal through production operations.
- *HP QC (Quality Center) 11*: A scalable, Web-based application that supports all aspects of application quality test management and delivery, including requirements management, testing, release management and defect tracking/management.
- *HP PC (Performance Center) 11*: A suite of integrated performance testing solutions that identifies potential performance bottlenecks by simulating production conditions under loads up to several thousand concurrent users.
- *HP Requirements Management*: Capabilities which capture, manage and track requirements throughout the development and testing cycles.
- *HP BPT (Business Process Testing)*: A Web-based software test design solution that enables subject matter experts to build and run automated tests with no programming knowledge.

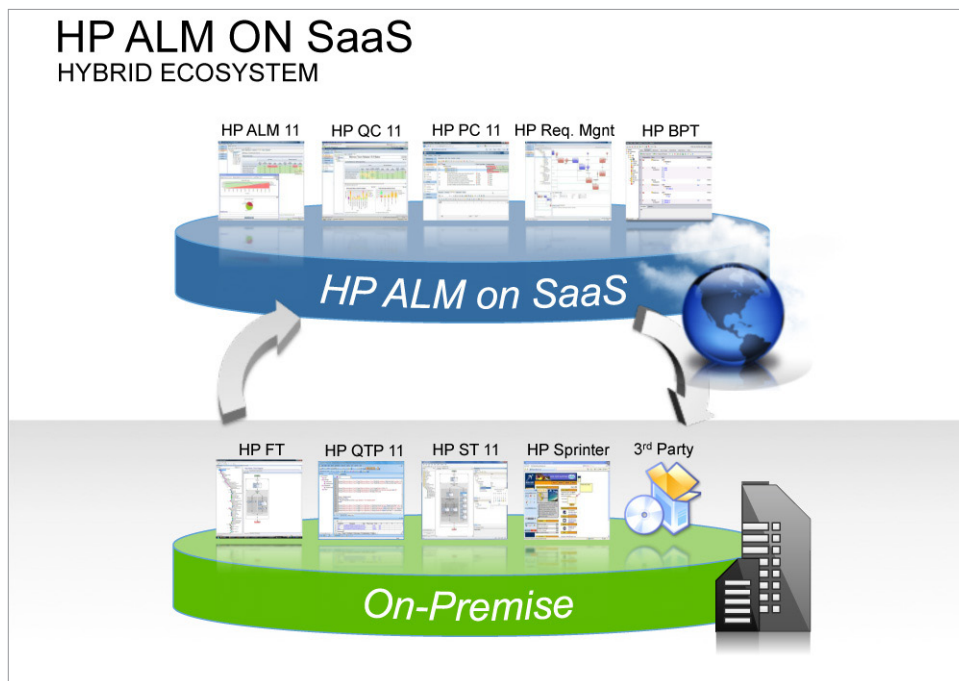


Figure 2: HP ALM on SaaS

HP's integrated solutions deliver a single "line of sight" across projects, software artifacts, geographies, teams and release trains. Pre-integration means less work for HP customers. And the HP brand is synonymous with products that address the requirements of even the largest global companies and projects spanning hundreds of applications and distributed teams.

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Integrations are straightforward and accommodate the needs of customers with different stakeholders who have already made tools investments. In lieu of writing off these investments, simplified integrations ensure that stakeholders aren't forced to change their tools and that existing assets maintain their value. HP ALM on SaaS can become a catalyst for transformation, enabling customers to close tooling gaps and introduce repeatable processes for improved outcomes.

For companies without ALM solutions or those with less enterprise-ready products, HP ALM on SaaS supports more consistent processes and shared practices leading to improved productivity and better collaboration. In addition, companies seeking to modernize have access to HP consulting experts supporting transformation and consolidation efforts.

Key Differentiators

- *HP experience and positioning as an enterprise vendor supporting world-class customers:* HP has been delivering SaaS-based solutions for years to global-class customers with strict governance and security requirements. HP's reputation makes HP's SaaS solutions viable options, even for companies with stringent delivery requirements.
- *Ongoing innovation:* As new development techniques and methodologies are introduced, tools must evolve to accommodate them. Investing in products from a large, reputable vendor such as HP ensures that tools continue to be enhanced and maintain their value over time, enabling companies to focus on business innovation versus re-tooling and re-training.
- *SaaS form factor virtually eliminates ongoing maintenance:* For customers, this ensures painless migrations and upgrades on an integrated platform and guarantees they are always on the "latest and greatest" product version.
- *Customizable for specific customer requirements:* HP's goal is to provide standards of governance, risk, control, quality of service, and service levels which meet or exceed those of customers. Customizations can also be done to address multi-tenancy, data location, security and connectivity requirements.
- *Ongoing mentoring and customized training:* Customer portal includes on-demand webinars, a best practice repository, collaboration opportunities, etc.
- *Unified, integrated platform:* Customers aren't saddled with the prospect of integrating a variety of on-premise solutions.
- *Flexible licensing:* HP ALM on SaaS offers a variety of licensing options that can be used in conjunction with one another to allow customers to scale according to business dictates.
 - Existing customers receive an on-premise instance (and a perpetual license): Customers can migrate existing licenses to SaaS and pay a small fee relating to the administration, operation and business services (consolidation, upgrade projects, mentoring, etc.) delivered by HP.
 - New customers take advantage of a true subscription model that can be paid monthly, quarterly, or annually.

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EMA Perspective

HP has been an established ALM vendor for many years. In addition, by virtue of the EDS acquisition, HP also has significant experience hosting applications “in the Cloud.” It makes sense for HP to build on these strengths, which make this company ideally suited to deliver ALM as a service.

The early SaaS marketplace was made up primarily of smaller startups, some of which became successful over time. This announcement demonstrates that success can also go the other way. HP Quality Center on SaaS proved to be very popular with customers. With this new solution, HP is positioning as a premier “ALM in the Cloud” vendor with a well thought-out integration strategy – an advantage which smaller vendors typically lack.

The enhanced offerings are also a stepping stone for both HP and HP customers to migrate to SaaS in a step-wise manner. For established Independent Software Vendors (ISVs) such as HP, SaaS necessitates changes to licensing models, sales models and channels as well as to product architecture. For IT organizations, leveraging SaaS for production applications can be stretch, with many companies blindsided by problems with implementation and integration. The step-wise approach makes sense, and HP is executing in a well thought out manner.

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EMA sees HP ALM on SaaS as being the right product at the right time, and this is borne out by the fact that it has been delivered at customer request. ALM is ideally suited for SaaS delivery, and HP has covered the bases in terms of such common concerns as security and integration. HP's emphasis on a quality product and the HP name itself will likely make this solution attractive to new and existing customers, while potentially opening up the ALM market to companies not currently utilizing ALM technology.

A Note from HP

- To start engaging with HP Software-as-a-Service, visit <http://saas.hp.com>
- To accelerate application modernization for better business outcomes, visit www.hp.com/go/ALM
- To connect with peers and HP Software experts, visit www.hp.com/go/swcommunity

Enterprises desire the business benefits of the Cloud, e.g., on-demand, elastic, subscription based payment, etc. while brokering a service which provides SaaS services in a manner that addresses strict Governance, Risk and Control (GRC) policies, high Quality of Service (QoS) standards and high Service Level (SL) demands. Enterprises are too big and too established to bend their GRC, business processes and expectations around a SaaS solution. The SaaS solution must be flexible and powerful enough to adapt to the needs of the organization. In fact, a SaaS provider for the Enterprise space should set goals to provide higher standards of GRC, and SLs which meet and exceed those of Enterprise-class organizations.

HP SaaS has been providing solutions in a SaaS model for over a decade now. With the experience we've gained over the years, we provide flexible packaged services to meet these enterprise requirements: dial-tone or white-glove services. With dial-tone services, organizations can leverage our world-class highly redundant infrastructure in a secure data center that meets enterprise GRC requirements and ensures scalability, integrity and security. HP SaaS guarantees the long-term delivery of HP ALM with 99.9 percent availability, as well as robust security levels (ISO 27001). With white-glove services, the HP SaaS team becomes an extension of the customers' environment.

About Enterprise Management Associates, Inc.

Founded in 1996, Enterprise Management Associates (EMA) is a leading industry analyst firm that provides deep insight across the full spectrum of IT and data management technologies. EMA analysts leverage a unique combination of practical experience, insight into industry best practices, and in-depth knowledge of current and planned vendor solutions to help its clients achieve their goals. Learn more about EMA research, analysis, and consulting services for enterprise IT professionals, lines of business users, and IT vendors at www.enterprisemanagement.com or follow [EMA on Twitter](#).

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