



The Payoffs Of PaaS: Four Ways Cloud Platform As A Service Offerings Can Improve Performance While Reducing Operational Costs

The world of information technology is changing at a rapid pace, and it's essential that CIOs and IT managers stay up to date on the tools and platforms that can help them manage their business' IT needs on time and on budget.

Increasingly, small businesses and Fortune 500 companies alike have begun gravitating towards cloud-based service providers for services including web hosting, web conferencing, and file sharing. In fact, the cloud-computing trend is growing at such a rapid rate that IDC predicts a five-year annual growth rate of 26%. That's more than six times the average growth rate of traditional IT offerings.

In a cloud-based system, a CIO or IT director may purchase a subscription-based plan that will provide the company with access to enterprise technology services. There is no need to purchase equipment or train staff to manage the new services: The service providers supply their clients with the resources and support to use the services remotely.

One of the many types of cloud-based services available is Platform as a Service, known as PaaS. This white paper will describe how a PaaS system operates, and present how CIOs can use this cloud-based enterprise solution to meet their customers' needs and save money on budget expenses.

The Emergence Of PaaS

Most CIOs are already familiar with Software as a Service (SaaS) solutions, in which the client makes use of software that is hosted on a centralized network service. PaaS operates on a similar model; however, instead of offering an end-user service, PaaS provides a comprehensive platform that developers can use to develop, test, deploy, and maintain websites and applications. This is a valuable tool for companies that need access to creation and management of sophisticated applications, in addition to simple data storage.

In contrast to traditional cloud hosting solutions that only provide access to remote servers, PaaS solutions may feature access to sophisticated middleware such as:

- Operating systems;
- File systems;
- Databases;
- High-availability web servers;
- Content management systems; and
- Load balancers and reverse proxies.

A PaaS solution can be an ideal tool for an organization that is ready to expand, but lacks the technical staff and know-how to support the new project. Rather than contracting with multiple service providers for operational assistance, the business is able to negotiate exclusively with a single vendor, saving time and improving efficiency.

PaaS can help organizations offload the operational burden of initiating and managing technical projects, which makes it easier to add new features on demand. The PaaS service Acquia, for instance, provides businesses and individuals with remote infrastructure and technical support to aid development and management of open-source Drupal websites. Acquia's PaaS service and world-class support provide extraordinary business benefits to enterprise organizations, such as faster response times, lower costs, improved uptime, and a more efficient use of business resources.

PaaS Payoff #1: Targeting Specialized Platforms

PaaS solutions can provide support and tools designed to simplify the development process on a range of platforms. This support allows businesses to target specialized platforms that can accommodate their customers' unique needs and changing trends in the market.

For instance, the increasing use of smartphones and other mobile devices is shifting both businesses' and customers' expectations about technology. IDC reports that smartphone sales outpaced sales of PCs in the fourth quarter of 2010; the company also forecasts that smartphone sales will approach one billion by 2015.

"Many of us are now doing the bulk of our work outside of the traditional four walls of the organization," says Jeff Kaplan, founder of the THINKstrategies consulting firm. "We need a method to respond to the continuously evolving requirements of both our end-user customers and our business partners, so that we can satisfy their mobile needs as well as their general work requirements."

A PaaS solution can provide a developer with access to mobile-specific and other specialized development tools and software, as well as expert support. PaaS reduces employees' learning curves when adapting to new technology and specialized platforms, helping enterprises adapt to market demand with ease.

PaaS Payoff #2: Pruning Operating Expenses

Challenges such as economic uncertainty and the globalization of the marketplace are forcing businesses to change the way they operate. Flexibility is paramount, both in terms of meeting customers' demands and in scaling operations based on the business' needs.

On-site information technology relies on physical servers, hardware, and other infrastructure, as well as a trained team of IT professionals. As a result, traditional on-premise applications can be very difficult to deploy and expensive to operate.

According to Kaplan's research:

- More than half of all on-site software projects cost 190% of their original estimates;
- Over 31% of on-site software projects are cancelled before completion; and
- Maintenance and management costs over the course of the project can cost up to 10 times the cost of the original license.

How PaaS Powers Al Jazeera

Acquia offers PaaS Drupal support and solutions for enterprise customers. Al Jazeera's case study illustrates how these PaaS options help businesses streamline their performance and lower their operating expenses.

The Arabic news organization Al Jazeera experienced an unprecedented surge of traffic in February 2011, when its reporting on the Egyptian protests gained global attention. Al Jazeera's web traffic increased by 1000%, which created long load times and unpredictable page performance for visitors. The news organization needed to increase its web hosting capacity immediately, or risk ongoing technical failures.

To resolve the problem, Al Jazeera moved its Drupal-based site from a traditional hosting provider to Acquia's Managed Cloud, which instantly supplied the business with access to elastic hosting and ongoing white-glove technical support.

Using Acquia's PaaS solution gave Al Jazeera the resources to quickly scale to meet the demands of its web visitors.

Now, high web traffic has no impact on the site's performance: Acquia's Managed Cloud provides the business with hosting resources to meet the company's real-time bandwidth needs, which has increased the site's uptime and reliability.

PaaS is a valuable, cost-effective alternative to traditional IT infrastructure for business owners and CIOs. "No longer do they have to consider making the bulk of their capital investments in software and systems," says Kaplan.

Instead, business owners and managers are able to use subscription-based systems on a monthly payment basis, which is reflected as an operating expense instead of a capital investment. This can increase monthly cashflow, allowing business owners to diversify and grow their companies more quickly by investing into a broader variety of business assets.

PaaS Payoff #3: Scalability

PaaS services' subscription costs are based on the business' use of the services. As a result, a business may easily expand or reduce its capacity, based on its needs at any given time. This scalability enables businesses to avoid paying for server space, technical support, and infrastructure that they are not actively using.

In contrast, businesses that focus on on-site software projects must pay the full cost of owning, operating and maintaining physical infrastructure, regardless of how frequently they are using the equipment.

This scalability is also a benefit for situations in which a company needs to temporarily expand its resources. For instance, Acquia's Managed Cloud provides an elastic environment that can automatically respond to spikes in web traffic by providing the organization with additional server space and redundancies, which will ensure that the website will never fail due to bandwidth overages. If the traffic spike ends, the business can reduce capacity to cut costs. If a business decides to shift its business model and is no longer reliant on the technology offered by a PaaS system, there is no obligation to continue paying for the cloud-based service.

PaaS Payoff #4: Early Adoption Provides Advantages

Given the demands of today's economic market and consumers' expectations, businesses must strategize ways to consolidate operations, cut costs, and increase flexibility while continuing to produce a high-quality product or service. Turning to PaaS solutions is an ideal way for companies to leverage technology to expand service offerings without outlaying significant capital expenses.

The PaaS market is poised for significant growth: Gartner forecasts that the PaaS market will grow from \$512 million to \$1.7 billion in 2015. Early-adopter companies that research and adopt PaaS solutions today will have the advantage of experience as the industry grows, and can transform their businesses according to their own demands by taking full advantage of the ever-expanding offerings of PaaS providers.

The Power Of PaaS

PaaS solutions provide substantial benefits to businesses, their employees, and their customers. In summary, PaaS provides tools for specialized development needs; reduces operational expenses by eliminating the need for on-site applications and support staff; allows for fast and simple scalability; and rewards early adopters, who will stand to benefit from their vision and knowledge as the PaaS industry continues to grow. By making use of PaaS solutions, enterprise organizations have the potential to immediately adopt new technological solutions and scale on demand, helping businesses meet goals more quickly and driving innovation and growth for a sustainable and profitable future.

About Acquia

Acquia empowers enterprises with the open-source social publishing system Drupal. Co-founded by Drupal's creator in 2007, Acquia helps customers manage their growth and scale their online properties with confidence. Acquia's products, cloud infrastructure, and support enable companies to realize the full power of Drupal while minimizing risk, as it's done for nearly 1,500 enterprise customers including Twitter, Al Jazeera, Turner, World Economic Forum, Stanford University, New York Senate and NPR. See who's using Drupal at showcase.acquia.com, and for more information please visit www.acquia.com or call 888-9-ACQUIA.

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