

Morph AppCloud White Paper

Executive Summary

Web applications have established a prominent role in today's businesses because of their ability to streamline processes, and their speed and efficiency in delivering results. Though highly productive, using the conventional approach of delivering a Web application, which is to build, manage, and support your own dedicated platform, this task can be very tedious and expensive—not practical for businesses who are looking to maximize profit by cutting down on expenses.

The more viable option is cloud computing—the idea of using the Internet to develop and distribute computer technology in a way that reduces the cost and labor associated with infrastructure setup and management. With cloud computing, businesses can now deliver their Web applications by outsourcing them to a Platform-as-a-Service (PaaS) provider who can provide an on-demand and fully managed hosting environment for Web applications.

Morph AppCloud is an on-demand platform for Web application development, deployment, and management. By combining people, process automation, and technology, Morph Labs enables businesses to have their own private Web application platform that's easy to provision, highly available, fault-tolerant, scalable, and obtainable at a fraction of the cost of building and managing a dedicated platform. Morph AppCloud can significantly reduce system administration burden, minimize overall IT expenses, and bring Web applications to life much faster than ever before.

Introduction

Businesses these days rely heavily on Web applications to automate their processes. These Web applications range from small departmental applications such as Customer Relationship Management Systems and Human Resource Management Systems, to enterprise-wide systems such as the Company Intranet and Enterprise Wikis. All of these mission-critical Web applications live and breath on a Web application platform.

A few years ago, when Web applications were not as sophisticated and widely used as they are today, Web platforms were nothing more than a Web server running on a piece of hardware. But as business processes have evolved and become more stringent, Web applications have, in turn, become more database intensive, more interactive, and more secure. To keep up with these demands, Web platforms had to evolve too in various dimensions. Today's Web application platforms include requirements such as:

High Availability

From the user's perspective, one of the defining factors of "superb user experience" is the application's availability. Users must be able to access the application anytime, all the time. To achieve this, components that comprise the platform must be independent of each other such that if one component fails, the entire environment doesn't go down, allowing the Web application to continue running.

Fault Tolerant

To avoid a single point of failure, especially at the application and database level, and to ensure the high availability of the Web application, redundant components should be available. Redundancy is typically implemented in multiple layers of the environment including the data center, load balancers, application servers, and database servers to eliminate even the slightest possibility of system and application malfunctions.

Recoverable

When the system goes down, the platform must be configured with self-repairing mechanisms that can bring the whole environment and the application back online in little to no time.

Backups

One of the most important features of the system, and a key concern to system administrators, are the data stored in the database. To protect these data and eliminate data loss, the platform must provide regular backups to the database.

Scalability

With the Internet now becoming a necessity, more and more people turn to it to make their lives more convenient. In order for an application to be successful, the platform it is running on must have the ability to allow Web applications to scale on demand to accommodate usage spikes.

Standards Based

The Web platform should be designed using technologies that embrace open source and industry standards to provide flexibility and minimize financial expenses.

Fast

The platform should include fair load balancing between the application servers to ensure the responsiveness of the application. Load balancers help minimize application lag time and downtime by automatically routing requests away from application servers that have stopped responding or from application servers that are overloaded with requests.

Manageable

Building the platform is already hard enough. The infrastructure must be designed in a way that's easy for the system administrators to monitor, manage, and support.

Creating this kind of platform is not an easy task. Companies who look to Web applications to streamline their business have to face challenges like instant provisioning, expensive data centers, the high cost of hiring system and database administrators, and more. All of these have one thing in common—they require a great deal of time, money, and effort. For those businesses who are looking to maximize profit by cutting down on expenses, building a dedicated platform is not an option.

A more practical solution that offers great financial flexibility and freedom from system administration is to outsource the Web application to a PaaS provider via the Internet, or the "Cloud."

Cloud Computing

Cloud computing is a concept that allows a company to provision a complete platform without needing to worry about the technology infrastructure that makes it possible. With cloud computing, whole systems can now be built with just a few mouse clicks, and Web apps can now be delivered at a fraction of the cost.

Cloud computing enables companies to significantly reduce system administration burden, minimize overall IT expense, and bring Web applications to life much faster than ever before.

Morph AppCloud

Morph AppCloud is a complete, on-demand Web application platform that helps businesses maximize their profit by significantly cutting down overall IT expenses. Built around knowledgeable people, automated processes, and state-of-the-art technologies, Morph AppCloud enables businesses to have their own Web application platform that's fully configured and fully managed—obtainable at a fraction of the cost of building and managing their own environment. Considered to be the first in the PaaS industry to support multiple development languages, Morph AppCloud supports Rails and Java applications. Support for other major Web development languages are already set out to be released in the next few months.

Using an interactive GUI, businesses can easily define the specifications of their platform by simply dragging and dropping icons that represent platform components (e.g. load balancers, databases, etc.) onto the building form. According to these specs, the Morph AppCloud system automatically builds the infrastructure, and in a few minutes, the platform is provisioned.

Starting at \$1,500 dollars per month, businesses can now have their own Web application platform composed of two front load balancers, two Web application servers, one database server, a host of automated processes that optimize Web application delivery, and a team of technical experts dedicated to servicing and managing their platform and their applications. This basic-configured environment already has the capability of running multiple Web applications simultaneously through the Morph AppSpace subscription.

People

The Morph team includes experienced IT professionals who can assure businesses that their application and environment are fully managed and well-supported. Through these people, businesses can get their application a:

Fully managed environment

Proactive system administrators will manage the business' platform and Web application and provide regular system administration that includes patching, updates, and even special configuration of servers when necessary.

Personalized technical support

The Morph support team provides a quick and personalized support for any technical queries and needs of their customers. They also actively participate in the Morph Forums (<http://forums.mor.ph>) that help foster a community of ISVs, developers, and businesses supporting each other.

Round-the-clock-monitored environment

The Morph team is capable of providing the kind of monitoring and support that would normally require hiring a dedicated team of system administrators. They will keep watch of the customer's application and platform 24 hours a day and seven days a week, and will quickly respond to any system alerts to bring the whole environment back to its full state—in little to no time.

Process Automation

Morph Labs' infrastructure is designed to simplify complex processes to help businesses save time, energy, and money. The entire environment, including the back and front end, is equipped with automated mechanisms that can greatly speed up all processes.

Instant provisioning of platform

Using an interactive "Drag and Drop" interface, users can simply drag and drop the components they want to provision using an editor and then click Save to automatically instantiate and configure them in the cloud. In just a few minutes, their own Web application platform is setup and ready to use.

Hassle-free application deployment

What used to be a tedious and time-consuming task, with Morph infrastructure's automated process, deployment is now something to look forward to. Successful deployment can be achieved in less than 10 steps and in no more than 10 minutes. With built-in deployment wizards and helpful deployment demos, users will never have to break a sweat.

Rollback capability

Morph archives multiple deployment versions of an application. So when an issue comes up on the latest deployed version, users can revert to the previous working version with just one click.

Scale at will

When the customer's application suddenly becomes very popular, to avoid getting slashdotted, they can increase or decrease their resources in just a few mouse clicks.

Up-to-the-minute backup

Morph designed its infrastructure to provide full backup of the customer's MySQL and PostgreSQL database every minute of every day. The window of risk for data loss is just one minute at most. In case of failure, backup is automatically restored until the last minute from the series of backups.

Technology

Morph's infrastructure is designed and built using the best of the latest available technologies to help streamline and optimize the deployment, delivery, and management of Web applications.

Morph Application Platform

Designed to be the ultimate end-to-end deployment, delivery, and management system for Web applications, the Morph Application Platform, on which the Morph AppCloud is running, can provide Web applications an on-demand and fully managed hosting environment that enables instant deployment, smooth application delivery, and end-to-end platform and application management.

Amazon Web Services

Morph takes advantage of distributed technologies powered by one of the best data centers in the world—Amazon. With their utilization of the Amazon EC2 for computing and Amazon S3 for storage, they can provide businesses with an on-demand environment that's fully managed in a much lesser cost.

Open technology base

Inherited from the Morph Application Platform's utilization of open source technologies, Morph provides businesses an open-standard subscription that helps assure the interoperability of diverse systems. This structure gives businesses the much needed flexibility to establish an account without any start-up costs and to terminate the subscription, anytime necessary, without incurring any penalties.

High-availability architecture

Being one of the defining factors of its design, Morph's entire environment is built with redundancies all across the environment to achieve the 99.9% uptime goal -- as reflected on their Service Level Agreement.

Conclusion

For businesses who want to cut down on their expenses to maximize profit, Morph AppCloud is the solution to all their Web application platform needs. Morph AppCloud is an on-demand and fully managed Web Application Platform for Web applications. By combining people, process automation, and technology, Morph Labs enables businesses to have their own private Web application platform that's easy to provision, highly available, fault-tolerant, scalable, and obtainable at a fraction of the cost of building and managing one. Morph AppCloud can significantly reduce system administration burden, minimize overall IT expenses, and bring Web applications to life much faster than ever before.

Starting at \$1,500 per month, businesses can get a basic-configured environment that's more than capable of delivering dozens of Web applications running simultaneously.

Visit www.mor.ph today to learn more.





www.mor.ph

Morph Labs is the leading provider of Platform as a Service (PaaS) that virtualizes the application environment through the use of open source technologies to simplify the deployment, delivery, and management of Web based applications.

Morph Labs uses virtual infrastructures including Amazon Web Services to provide a truly elastic environment for web applications that can be instantly provisioned and seamlessly scaled.

Morph Labs is a global company with headquarters in Cebu City, Philippines and additional in-country operations in Manila. US operations are headquartered in Portland, Oregon, with additional offices in Los Angeles, California.

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