TECH TALK by Amin Marts

A View From the Clouds

Part 2 of a 2-part series

Welcome back for the second part of this two-part series, *SaaS to PaaS*. Last month we talked through the value proposition and relevance of Software as a Service (SaaS). This month, the name of the game is PaaS, or Platform as a Service.

Picking up where we left off, two points discussed in this article include identification of who the PaaS players are and the relationship and impact PaaS has on the application development model.

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> What is PaaS?

Platform as a Service can be best thought of as a method of development coupled with a delivery mechanism. Similar to SaaS, PaaS is a technique of leveraging the portability, reliability and power of the "cloud"; the cloud being the Internet and its supportive, disaggregated applications and platforms which supply the processing power for various tasks and procedures.

Interestingly, this movement toward cloud processing has major computer hardware vendors taking notice.

Why?

The best answer lies in the recent change in how knowledge workers compute. Cloud computing is changing the types of computers the masses use. Prior to the shift toward cloud computing, laptops and desktops were engineered to provide as much processing power as possible to the knowledge worker because the application lived locally.

Even as applications migrated from the desktop to the datacenter there was little change in how machines were engineered. Fast forward two or three years and add the catalysts of pervasive broadband, globalization, the rise of the small to medium enterprise, the concept of small being the new big, and the growth of mixed source solutions, and the stage is set for a computing revolution. Laptops and desktops now require less computing power because the bulk of processing is handled in the cloud a la the datacenter that resides in either a building across campus or halfway across the world. In this scenario, the machine is nothing more than a conduit to a power plant.

> What the Future Holds

On the horizon in 2009, the market will see a number of these conduit machines or "cloudbooks," become available to a wider audience. Although these computers won't be as powerful as today's hogs, they promise to be smaller, cheaper, more portable and more energy efficient than their predecessors. Cloud computing is changing not only the way software is developed, but it's also having a fundamental impact on trends in computer manufacturing.

Let's turn our attention to the application development model PaaS provides, starting with conventional application development. The conventional model is riddled with inefficiencies surrounding building and supporting multiple environments, including a test and production environment that requires the application in development to be migrated between the two. Additionally, this method of development doesn't work optimally in a collaborative sense. Not to demean the value proposition of collaborative solutions, but from a 30,000-foot perspective, being able to easily include and remove individuals from the development process does create a positive economy based on principles of higher productivity and efficiency.

The opposing view of application development is the modern or contemporary model. Much like the application model, the development process walks through the processes of building, testing and launching.

Subprocesses of each step are exponentially fewer and simpler. These steps can all be satisfied via the use of one platform as opposed to building and maintaining a test and production environment. Developing services that will be consumed via the Web within that same platform reduces development costs and speeds time to market.

PaaS also simplifies developers' ability to collaborate with each other throughout the project. Working within such an environment also makes it easy for project managers to track the project and keep it on schedule. In addition, the same principles that ease the tracking of the project also provide the mechanisms for compliance auditing and usage charge back.

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PaaS solutions, which to some degree are based on SaaS solutions, are inherently transparent, opening the door to a multitude of options relating to integration points, compliance scenarios across geographies and regions, and collaborative production and production management scenarios.

> Who to Watch

A major leader in the PaaS market space is Salesforce.com. They have had a large role in defining the technical vision for not only themselves but for the entire industry.

Salesforce.com entered the market right from the inception of the idea of computing on the Web. Lately, they've leveraged the model even further by taking advantage of the PaaS development schema. Few companies have been able to seamlessly evolve their platform delivery and development mechanisms as effortlessly as they have.

Another PaaS leader is Bungee Labs. They leverage the PaaS model of development to facilitate software development on a broader scale. They provide the framework, including a single development environment that unites the steps of building, testing and launching to one location.

In closing the conversation of SaaS and PaaS is bigger than a simple discussion about development platforms. The development mechanisms and computing model of modern computing demand a portable collaborative structure. Those organizations that are able to migrate their applications and services to the cloud will be the ultimate winners. Cloud computing is upon us, and it's best we all understand and leverage this model.