Born in the cloud

There is now a new environment in which business applications can be developed, deployed and maintained.

As cloud computing grows in sophistication, so do the demands that businesses place on it. These days, many don't wish to use it simply to access software-as-a-service (SaaS) applications written by another company. They want to use the cloud as an environment for creating and deploying their own applications.

This demand has led to the rise of what are known as platform-as-a-service (or PaaS) solutions, a form of cloud computing that provides both a development environment in which to create applications and a run-time environment to deliver them.

It's an exciting concept that promises fast application delivery times and the chance to avoid hefty upfront costs, according to John Rymer, an analyst at IT market research company Forrester Research. The problem, he says, is this: "The term 'PaaS' describes many different approaches, each of which has a particular 'sweet spot' among application scenarios." In recent research, he and his colleagues found 20 products available today, addressing a range of customer demands.

Of these, perhaps the best known is SaaS market leader Salesforce.com's Force.com platform. This offers developers to build applications and deploy them using Salesforce's own on-demand tools and collaborative development environment.

But for some software developers, this approach has an inherent drawback: the applications created in this way are tied to the Force.com platform, with no easy way of transferring them to another cloud location.

For that reason, many prefer an approach that offers them the opportunity to build and deploy applications that take a wider view of cloud computing; or, in other words, applications that don't care whether they are to be deployed in a full client- or web-based environment; on-premise or on-demand; as a packaged application or service-based solution; or in a localised or global format.

That narrows the field of available products considerably. One product that aims to meet these demands is Magic Software's uniPaaS, a Rich Internet Application (RIA) and SaaS-enabled application platform that enables independent software vendors (ISVs) and enterprise software architects to develop solutions that embrace the full range of non-cloud and cloud delivery formats.

UniPaaS offers developers three main advantages over many competing application platform products, say Magic Software executives. First, uniPaaS provides an end-to-end environment for software development, where developers don't need to worry about whether they're coding software for the user interface, server or intermediary communications layers - it's all covered by the same codebase.

Second, because the uniPaaS platform is based on a metadata engine, developers draw on a library of pre-written 'building blocks' of code to assemble their applications, making it much easier for non-technical specialists such as business analysts and IT staff to work together on software development projects.

Finally, uniPaaS enables companies to create applications that can run in multiple deployment modes. This means that developers can evolve their application portfolios from a client-server architecture to a RIA or SaaS solution as the situation demands, without losing a single line of business logic.

That flexibility makes uniPaaS a good choice for ISVs who want to start offering existing client-server applications to customers under a new, subscription-based SaaS model. Increasing customer demand for SaaS has already convinced the largest software vendors to take that step, but the considerable migration costs involved in porting software from one platform to another have deterred many mid-size ISVs. uniPaaS gives ISVs the advantage of building a single product that can be deployed with existing on-premise customers as well as new SaaS customers, using the same codebase but requiring only a single development and maintenance effort. In that way, they can gain a foothold in the SaaS market, while maintaining existing business from an on-premise client/server model.

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