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On the Path to Cloud Nirvana

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The traditional software model is on the verge of a massive transformation. The value of software as a service (SaaS) demands attention from all independent software vendors (ISVs), but the multi-tenant, hosted architecture presents enormous technical challenges. Cloud computing offers a variable cost approach to delivering applications on-demand, relieving ISVs of the expensive burden of building out a high quality custom infrastructure. And virtual appliances are the new application architecture for delivering applications to customers on-premise (via the hypervisor) or on-demand (via cloud computing).

As application users increasingly virtualize their data-center computing resources, it is going to become more and more common for them to rely on computing clouds outside of the datacenter for certain application workloads. Once you have virtualized the infrastructure and defined the applications you run as virtual appliances, moving the application from datacenter to datacenter (or cloud to cloud) becomes much easier.

KnowledgeTree is one example of an application provider seeing instant benefits as a result of rolling its solution out "in the cloud" and utilizing the virtual appliance approach. The company is a provider of open source document management applications to small and medium businesses (SMB) and the departmental space. To address a rapidly-growing market demand for its solutions, KnowledgeTree needed a simplified yet flexible offering, leveraging a SaaS delivery model. At the same time,

KnowledgeTree did not want to invest in the infrastructure and re-architecture of the application that a SaaS model would require.

Following an extensive market evaluation, KnowledgeTree decided to run Amazon's Elastic Compute Cloud (EC2) and Simple Storage Service (S3), using rPath's rBuilder to generate the needed virtual appliances. The Amazon EC2 solution provides a highly scalable and fault-tolerant virtual infrastructure which helped KnowledgeTree eliminate the need to build its own hosted datacenter infrastructure. rBuilder made it easy for KnowledgeTree to transform its existing application into a virtual software appliance that could flawlessly run on Amazon EC2. As a result, KnowledgeTree was able to create its virtual appliance image from the existing KnowledgeTree application, with no modifications for multi-tenancy required.

KnowledgeTree now benefits from virtually unlimited scalability in storage and robust data integrity; also, the company can increase the number of rPath Linux-based appliances available to users when service traffic is high. The scaling of virtual appliances is entirely transparent to the user and takes a matter of minutes to complete.

While end users enjoy a hosted application that is easy to use, cost effective and secure, the virtual appliance approach has benefited KnowledgeTree by accelerating license growth and entry into new markets; reducing support and development costs; leveraging a highly scalable and affordable virtual infrastructure; and relying on a vast and cost-effective storage service for user data.

More and more application providers like KnowledgeTree are realizing the sizeable benefits of launching new instances in the cloud during peak demand and paying a variable cost charge until the crest subsides, rather than buying all the servers to deliver applications at peak load. Why own the servers when you only use them periodically?

Virtual appliances deliver all of the value of SaaS to your customer base without the hassles associated with changing your technology and changing your business model. And your customers can run the virtual appliances on-premise, but without the headaches of technology integration and multiple party maintenance management.

If you are interested in learning more, a case study can be found at www.rpath.com/corp/images/stories/Collateral/rpath_knowledge_tree_case_study.pdf.

Billy Marshall is the CEO and co-founder of rPath. Billy is a leading voice in driving adoption of virtualization and virtual appliances to accomplish rPath's mission - simplify the delivery and consumption of software innovation. Under Billy's leadership, rPath was the first company to offer products for the creation, distribution and maintenance of applications as virtual appliances. You can read Billy's ongoing analysis of the software industry, virtualization and open source at billyonopensource.blogspot.com.