Cloud Expo Showcases Disruptive Technologies – part 2

RFG POV: Big Data and cloud computing are two of the more compelling trends, and biggest management challenges. Wrestling with how to leverage and adopt cloud solutions to improve business agility or lower costs are among the biggest decisions business leaders face today and into the foreseeable future. Another challenge is keeping up with the volume of new solution providers entering the space along with determining which established players offer the best mix of technology, partnerships and support to meet these new business requirements.

RFG divides the Disruptive Cloud Solution Providers (DCSPs) into four broad categories: Infrastructure, Applications, Services and Storage. (See Figure 1.) This is the second in the three-part series on cloud providers and covers cloud-enabling applications and cloud services providers.

Figure 1. Disruptive Cloud Solution Providers

Cloud-Enabling Applications

ActiveState is the creator of Stackato, "the application platform for creating your own private, secure and flexible enterprise Platform-as-a-Service (PaaS) using any language on any stack on any cloud." According to CTO Jeff Hobbs, "Stackato is an agile PaaS development environment that enables enterprise developers to leverage all the benefits

of a public PaaS to deploy, manage, and monitor applications, while meeting the security and privacy requirements of enterprises. Stackato also allows developers to easily test applications in a production environment, self-serve, and get apps to the cloud in minutes, not weeks." In December 2012, ActiveState penned an OEM deal with HP to provide Stackato for HP Cloud Public services clients. In addition, Stackato is also 100% Cloud Foundry compatible leading Hobbs to remark, "Stackato is open source compatible with no vendor lock-in and enterprises can integrate it within their existing IT infrastructure including databases, web servers and authentication systems, and customize it to support all the languages their developers need."

Appcara provides a "flexible and easy-to-use cloud application" called *AppStack* targeted at the service providers and enterprises who need to quickly stand-up apps, such as AWS in the cloud and then deploy and scale those apps accelerating application services and simplifying the management of distributed applications in the cloud. AppStack allows users of Hadoop or Hive-based Big Data analytics applications to easily and holistically deploy and manage these applications as a single entity rather than server by server. An "easy-to-use portal for launching and managing these distributed applications either on an internal cloud, public cloud, or both, while preserving application portability, makes it possible for technical and less-technical users alike to manage cloud-based apps." Meanwhile, Appcara enables CSPs to "rapidly" deploy application services for their customers on public clouds such as AWS or Rackspace, or private cloud environments such as Citrix or VMware, or open platforms such as CloudStack.

AppEnsure delivers "Application Performance Ensurance in dynamic virtualized and cloud computing environments, enabling the cost benefit promise of utility computing while maintaining business-critical application performance." Founded in 2011, AppEnsure has received a round of "Angel" investing as well as investment from the Citrix Startup Accelerator program. As CEO Colin L.M. Macnab, a veteran of several startups and IPOs, explains, "The problem with cloud infrastructure management is you have different views by different individuals within the enterprise. First you have Server, Storage and Network views. Then there's the application view. It's death by dashboard." AppEnsure primarily targets the applications operations person but also IT operations and system administrators. The solution deploys a light-weight (1% overhead) agent that follows every transaction or, optionally, a front-end agent. Every packet is inspected, data is collected, dumped into Splunk and analyzed for automation of "application topology discovery, analytics and resolution." AppEnsure runs on-premise or as a SaaS-based solution.

SOA Software powers the "*API Economy* with products that enable customers to plan, build, run and share APIs through comprehensive cloud and on-premise solutions for API lifecycle, security, management and developer engagement." According to CTO Alistair Farquharson, "SOA is a superset of services. API is a channel to the business. SOA became technical but it should be business focused. APIs have business focus, they are not technical. APIs help to drive revenue or help in supporting new channels. There are

APIs for enabling micro-payments or for mobile apps that support business people in focusing on business opportunities and SOA Software provides the most complete, end-to-end API management solution available." SOA is very active in the travel industry with footprints in the finance industry, healthcare and other industries. SOA's OAuth Server is a standards-based, enterprise-grade authentication and authorization product that integrates the most common identity and access management systems, including LDAP, Active Directory, CA SiteMinder, Oracle Access Manager, IBM TAM and RSA ClearTrust in order to simplify cloud identity challenges faced by most end-user organizations.

Cloud Services

Dell Cloud Computing Services works with enterprise customers who seek support for planning and building their own cloud environment whether that is a private, public or hybrid approach. "Dell Cloud Services speed time to value at each stage of the process: from an initial workshop or overview of cloud technology, to a full assessment of an organization's infrastructure and business needs, to design and implementation." Project Crowbar is Dell's open source software framework that allows customers to install cloud software across clusters, such as Hadoop, and scale out systems along with offering network monitoring and discovery, and gathering of performance data. Dell is a supporter of and contributor to OpenStack and remains one of Intel's biggest partners. However, Dell Ventures has invested in several disruptive technology companies including Flash Storage innovator Skyera whose profile is included below. Dell is also partnering with VMware to deliver the VCloud Datacenter Service for its enterprise customers.

SHI is a $4 billion, privately held global provider of IT products and services ranging from software and hardware procurement to deployment planning, configuration, data center optimization, IT asset management and cloud computing. The current owner since 1989 has grown entirely organically "through neither merger nor acquisition, the direct result of backing a highly-skilled and tenured sales force with software volume licensing experts, hardware procurement specialists and certified IT services professionals." SHI technology partners include Cisco, EMC, HP, Intel, SUSE and VMware. Cloud services run the gamut from managed services, IaaS, consulting, back-up as a service, planning and implementation services, cloud security offerings and solutions as well as partnering with co-location providers, SaaS and MSP providers. SHI is one of the consummate sales and reseller organizations entering the cloud space and has plans to offer additional cloud-based software service later this year.

SUSE Cloud program is SUSE's channel program for CSPs. SUSE has tailored its licensing model to attract CSPs to its Linux Enterprise Product portfolio to fit the cloud business model. This includes pay-per-use-pricing, simplified workload deployment and management utilizing SUSE Studio, a strong partner ecosystem in the Linux world, and SUSE's "world-class" support. SUSE Linux Enterprise Server running on Windows Azure is a proven platform for Windows environments, and SUSE supports Amazon AWS which provides a highly reliable, scalable and low cost infrastructure platform.

With the SUSE Studio, customers can "build their own optimized SUSE Linux Enterprise operating system images and application workloads, and deploy them into the cloud with just a few mouse clicks. SUSE Manager lets clients manage workloads in the cloud just like they would in their own data center."

Conclusion

With the market for cloud-related products and services anticipated to exceed $200 billion per year by 2020, the opportunities for CSPs and technology companies are enormous. At the same time, the consumerization of IT is pushing technology solution providers, CSPs and application developers to improve services, user interfaces, APIs, security and self-service applications to the point where non-technical, line-of-business users can easily manage and provision their own solutions while accelerating time to value.

RFG POV: Cloud solutions and services are evolving quickly and the field of offerings can be expected to undergo tremendous changes over the course of the next few years. While there are multiple risks associated with utilizing cloud services, the lower cost of ownership, the consumption-based business model, and quicker implementation times are compelling users to experiment and adopt cloud solutions sooner than later. **Business and IT executives need to experiment with various cloud offerings to determine which ones best satisfy current and planned initiatives before leaping into commitments that can consume scare resources. Furthermore, IT executives planning on utilizing cloud services should ensure service level agreements (SLAs) and contract terms and conditions as well as vendor financials comply with corporate requirements.**

Additional relevant research is available. Interested readers should contact Client Services to arrange further discussion or interview with Mr. Gary MacFadden, Principal Research Analyst.

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