Achieving the Value of Cloud Services using Cloud Services

Introduction

As recently as a few years ago, many IT organizations were skeptical about the value provided by public cloud computing solutions. However, a recent market research report[1] documented the fact that IT organizations currently are feeling comfortable enough about public cloud computing that they are making significant use of these solutions in general, and of Software-as-a-Service (SaaS) solutions in particular. For example, that report indicated that SaaS revenues hit US$9 billion in 2009 and are growing at a rate of over 17% per year.

The factors that drive businesses to use public cloud computing solutions were documented in a report entitled *Cloud Computing: A Reality Check & Guide to Risk Mitigation*[2]. The primary factors, in descending order of importance, are:

- Lower cost
- Reduce the amount of time that it takes to deploy new functionality
- Obtain functionality that the organization is not able to provide themselves
- Free up resources

The initial interest in SaaS was to enable an organization to gain access to one or more enterprise applications such as customer relationship management (CRM), supply chain management (SCM) or enterprise resource planning (ERP). While interest in acquiring that class of application from a SaaS provider remains high, there has recently been a great growth in the interest that organizations have in acquiring a traditional IT service from a SaaS provider. These IT services include network and application performance management, network and application optimization, unified communications, VoIP, virtual desktops and disaster recovery.

One goal of this market insight and product brief is to describe the ongoing market transition whereby IT organizations place increased emphasis on monitoring the performance of cloud based services. As part of this transition, a growing number of IT organizations are acquiring cost-effective, easy to use network management functionality from a SaaS provider in order to provide this monitoring. Another goal of this brief is to describe a solution from AppNeta that is leading this new generation of cloud management solutions.

Cloud Management

In this brief, one of the meanings of the phrase *cloud management* is the management functionality that can currently be acquired, and in the near future will increasingly be acquired, from a cloud computing service provider (CCSP) such as AppNeta. Not surprisingly, the factors that are driving IT organizations to use a cloud based management solution are the same factors that drive businesses to use cloud-based applications such CRM, SCM or ERP. Those factors are that a cloud-based management solution lowers cost, reduces complexity, reduces the time it takes to deploy new functionality, frees up resources and enables IT organizations to obtain management functionality that wasn't previously available; e.g., monitor end-to-end application performance.

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[1] http://www.saasnewswire.com/?p=676
[2] http://www.webtorials.com/content/2009/12/cloud-computing-a-reality-check-guide-to-risk-mitigation.html

In this brief, another meaning of the phrase *cloud management* is the management of services provided by a CCSP. As is the case with the deployment of most new technologies and services, there was at best a minimum of management capability associated with the initial wave of CCSP services. For example, the initial wave of CCSP services came with little if any commitment on the part of the service provider relative to an SLA. The SLAs that were provided were based strictly on the availability, and not the performance, of the CCSP's service. These SLAs required the customer to use primitive techniques such as logging to prove that the CCSP's solution didn't meet the promised level of availability. Few if any IT organizations had the ability to monitor and manage the end-to-end performance of this initial wave of CCSP provided services.

This minimalist approach to the management of cloud based services is changing in part because IT organizations are demanding that it change. They are demanding change in part because the traditional approach to management, by which IT organizations acquire and maintain a set of management tools, is both expensive and complex. IT organizations are also demanding change because over the last two years these organizations have responded to internal pressure and have begun to offer performance-based SLAs to the company's business unit managers. However, the majority of IT organizations have found that conducting the end to end performance monitoring that is necessary to support SLAs for delay-sensitive applications such as VoIP is very difficult. For example, as documented in *Cloud Computing: A Reality Check & Guide to Risk Mitigation,* over two thirds of IT organizations stated that getting better at ensuring acceptable performance for VoIP traffic was either very or extremely important to their organization. In order to meet the expectations that a company's business unit managers have for application performance, IT organizations must be able to monitor and manage the end-to-end performance of these applications, whether they are provided by the IT organization or by a CCSP.

Another factor that is driving the initial minimalist approach to the management of CCSP services to change is the fact that many CCSPs are scrambling to find ways to differentiate themselves in the market. One clear way that CCSPs can differentiate themselves is by offering a performance-based SLA and by making it easier for their customers to monitor the end-to-end performance of the services that they provide.

AppNeta

AppNeta was recently launched by the team, technology and assets of Apparent Networks. One of those assets is more than 1,000 enterprise and managed services provider customers. AppNeta's PathView Cloud Network Performance Management solutions perform non-invasive, end-to-end performance monitoring of bandwidth utilization, delay, jitter, QoS and packet loss on a hop-by-hop basis. AppNeta is supplementing that active network monitoring capability with the capability to perform active performance analysis of applications such as VoIP, video, IP storage and VDI. AppNeta also offers the capabilities to perform packet and traffic capture at remote sites using the PathView appliances, a zero-administration device that enables remote site performance management in just minutes of deployment.

AppNeta delivers on the promise of cloud management in part by not requiring an initial capital outlay and in part because it delivers nearly instantaneous time to value – just plug in the

microAppliance. It also provides insight into the end-to-end performance of a CCSP provided service that was not previously available and because it is delivered as a SaaS solution, it frees the IT organization from having to maintain the servers and databases that are required to support the functionality. AppNeta also delivers on the promise of cloud management by providing end-to-end insight, using remote, automated packet and flow analysis, which does not depend on whether the application is hosted in the company's data center or is provided by a CCSP.

Conclusions

Beginning a few years ago there was a transition in the market whereby companies moved away from acquiring, installing and maintaining enterprise applications themselves and instead they began to use applications that were provided by a SaaS vendor on a best effort basis. At roughly the same time, IT organizations began to offer SLAs for the availability and performance of a set of delay sensitive, business critical applications.

Today, driven in part by the ongoing movement to offer performance-based SLAs, another market transition is underway. As part of this transition, it is becoming unacceptable for companies to utilize a SaaS-based application and not be able to monitor the performance of that application. In order to monitor the performance of SaaS-based applications that they either consume or provide, both enterprise IT organizations and service providers should consider the use of SaaS-based management tools. Some of the advantages of using SaaS-based management tools are that they lower cost, provide nearly instant time to value and reduce complexity.

If the enterprise IT organization or CCSP is either consuming or providing one or more delay sensitive applications such as VoIP, video, IP video or virtual desktop, it should strongly consider using AppNeta to monitor the performance of those applications. The AppNeta suite of solutions provides a detailed level of insight into the end-to-end performance of those applications that was not previously available and provides that insight whether the application is hosted in the company's data center or is provided by a CCSP.