Private Cloud Computing
Posted by davidfcarr - 2009/01/25 23:13

I took a briefing Friday with Sajai Krishnan, CEO of cloud storage start-up ParaScale, which wants to sell you software to set up your own equivalent of a cloud storage service akin to Amazon S3 within your own network.

That is, a "private cloud."

I have to agree it's annoying how the I.T. industry tends to take terms that have a distinctive meanings and relentlessly blur their meaning. I've heard the argument that, by definition, "cloud computing" is a service we get from someone like Amazon or Google that lives out in the public Internet "cloud." But it's a losing battle. IBM's ideas about cloud computing also incorporate the idea of parallel public and private clouds. And other vendors have latched onto the same concept. The idea is that a private cloud, while not operating on the same galactic scale as those public Internet services, mirrors the architectural concepts large Internet vendors have embraced in order to build huge information services that can be operated economically on commodity hardware.

ParaScale's product has yet to officially launch, and they haven't offered up beta testers for interview, so I can make no judgements about its quality. But the company is promising a software-only solution, based on Linux, that you'll be able to scale quickly and smoothly with the addition of white box servers.

Krishnan argues that's exactly the difference between "cloud computing" and other generations of computing promises, such as "utility computing" that sound rhetorically similar. This is about doing it on the cheap, rather than building utility services on big iron from IBM, or Sun, or whoever. He acknowledges that for some top-tier transactional data, companies will still be willing to make the investment in premium storage hardware. Cloud storage will fit the niche of addressing "the exploding demand for tier 2 storage," he says.

He's talking about all that other stuff, the data we store not necessarily because it's essential but because we can, because we know storage is getting cheaper all the time. Just like you and I clutter our big laptop hard disks with songs and photos and videos, corporations are bulking up their archives of old invoices and training videos. It may not be essential, but it's useful to keep it if we can, and now we can. If we want to send it out into that big cloud on the public Internet, we can. If we want to keep it closer to home, in an architecture that mirrors that public cloud, we can do that, too.

We're building a big, flexible world, but a little hard to talk about sometimes.

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Re:Private Cloud Computing
Posted by Bill Gerneglia - 2009/02/02 11:42

This seems like a viable solution for internal data storage needs of an organization, but it will not necessarily obviate the need for tape backup for or data replication for disaster recovery purposes. Unless of course the organization has a global WAN they can use to distribute data across.

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Re:Private Cloud Computing
Posted by Bill Wilson - 2009/02/03 10:59

This approach to data security and data backup seems like it will be full of holes, I do not think I would feel safe having all of my corporate assets spread across many cheap PCs with large disk drives.

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Re:Private Cloud Computing
Posted by davidfcarr - 2009/02/03 11:54

On the security issue, I'd say it really depends on the type of data you have to store and how much security it really requires. The other day I visited with an executive at the local TV station who was fretting over how quickly the 14 terabytes of storage he had available for digital video kept filling up, largely because station personnel kept stashing away clips that they thought they might need to retrieve someday.

The cloud computing vendor I spoke to mentioned just that kind of "tier 2 storage" of nice to have but not necessarily

sensitive or mission critical data as something that was a good match for the cloud architecture. In fact, he specifically mentioned video content -- not just for TV stations but corporate video, such as the instructional videos one retailer he works with was using to train staff on the right way to break down shipments and display goods on the store shelves.

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Re:Private Cloud Computing

Posted by ronkost - 2009/02/06 17:48

I think it would make sense for some companies to utilize this kind of software and not others. Some groups within the company might want to store training video and other nonsensitive documents along with non mission critical data.

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Re:Private Cloud Computing

Posted by msneubarth@gmail.com - 2009/09/29 17:59

In looking over the cloud landscape, I found a lot of contention about what constitutes cloud computing and which would be more popular. Generally, there is agreement that there are two main types of cloudsâ€"external and internal (or private) clouds.

A Gartner definition of cloud computing is â€œA style of computing where scalable and elastic IT capabilities are provided as a service to multiple customers using Internet technologies.â€•

The definition used to say â€œto multiple external customers,â€• but Gartner now recognizes private clouds.

Gartner analyst Thomas Bittman wrote in February: â€œThereâ€™s an argument over whether the term 'cloud' can be used to describe the changes taking place in internal IT architectures. How silly!â€•

Said Bittman: â€œI believe that enterprises will spend more money building private cloud computing services over the next three years than buying services from cloud computing providers.â€•

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Re:Private Cloud Computing

Posted by scarr - 2009/12/02 11:02

Private or Public Clouds - what really is the difference?

This year's overhyped IT concept is clearly cloud computing - aka - software as a service (Saas), cloud computing is when you run software over the internet and access it via a browser. The Salesforce.com customer management software is an example as is Google Docs. If you believe in all of the hype, then cloud computing will be every where in the future.

But the truth is, hype aside, cloud computing really is nothing new . It's the modern version of the timesharing model from the 1960s, which was eventually replaced by the the empowerment of the end user through the rise of the personal computer.

Similar to what Hotmail and Gmail have been doing all these years, remote backup companies, and remote email filtering companies such as MessageLabs. IT outsourcing, network infrastructure, security monitoring, remote hosting is a form of cloud computing. Whether it is a private or public cloud should be transparent to the end user.

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Re:Private Cloud Computing

Posted by jmottl - 2009/12/10 13:30

Big news today on how a slew of big tech players have formed a council to propel cloud computing. IBM, Microsoft and HP are just three that have joined up to form the Enterprise Cloud Buyers Council. Noticeably absent is Amazon. Here's the link to the TechFlash article:

http://www.techflash.com/seattle/2009/12/tech_giants_form_cloud_computing_group_amazon_absent.html

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Re:Private Cloud Computing

Posted by caragarretson - 2009/12/11 09:22

I wonder if Amazon is absent because of the word "Enterprise" in the title of this new council? While Amazon gets the cloud model, does the company get how to support enterprise customers?

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Re:Private Cloud Computing

Posted by searley - 2009/12/14 10:01

I find this topic of cloud computing to be very confusing. Are we talking about a content hosting site like Flicker or google storing data on arbitrary computer - that is not owned by them. Or are we simply talking about an array of storage devices owned by the content host. It does not seem that cloud computing is anything more than a rebranding of a something that was conceived years ago.

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Re:Private Cloud Computing

Posted by Bill Gerneglia - 2009/12/14 15:50

I think you are correct, it is another name for a service provider model that has existed for a long time. It becomes a way for IT departments to speak about services that are provided on both sides of their firewall - perhaps transparently. In addition, it allows a company to leverage an array of low priced servers to create there own cloud.

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Re:Private Cloud Computing

Posted by searley - 2009/12/15 10:50

So the idea is that it will be cheaper to obtain storage space and/or processing power from a third party provider, than to own/lease/maintain your own hardware? That's sounds good in theory, but is it worth the risk of being "tied" to a hardware provider? After all moving my "small business systems" from one provider to another is not a trivial task.

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Re:Private Cloud Computing

Posted by caragarretson - 2009/12/15 13:56

One Forrester analyst defined cloud computing to me this way - it's your basic hosted model, but it's metered. So instead of signing a one year contract or whatever, companies pay for what they use as they go. I agree that all the buzz around cloud is puzzling since the model has been around for decades, but the nice thing about the metered model is you pay only for what you use and you can sever your tie to the service provider at any time.

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Re:Private Cloud Computing

Posted by Bill Gerneglia - 2009/12/16 09:52

Pay as you go is a definite advantage as you point out. To searly's point before that though the nature of one's applications - especially for a small business with limited resources should dictate how easily that can be migrated from one service provider to another should the need arise.

If you are running a small business and are using off the shelf software applications, and open source components and

say a LAMP stack then moving your apps to another cloud provider is much simpler than if your custom built applications are tied to a particular architecture offered by a specific hardware vendor. You will need to find a new service provider that fits your hardware profile and then migrate applications and data store to the new provider - not a simple task.. In my experience database, application, and data replication programs and services do not deliver as promised.

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Re:Private Cloud Computing

Posted by caragarretson - 2009/12/22 08:18

Then there's also the issue of companies who want to use multiple different cloud service providers, but still need to integrate these applications at some point, along with whatever apps they are still running internally. Cloud computing hasn't advanced enough to provide true interoperability among vendors - seems they're still focused on locking customers in.

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Re:Private Cloud Computing

Posted by tomhoff - 2009/12/22 11:42

CIOs are concerned about several aspects of the cloud as it currently stands. This includes the security of an organization's data in the public cloud as well as uncertainties surrounding the return of proprietary company/customer data if a contract with a public cloud provider is dissolved. Those are just some of the reasons why we're seeing some CIOs opt for creating private clouds for their organizations or limiting what they're willing to utilize in the public cloud, at least for the time being.

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Re:Private Cloud Computing

Posted by searley - 2009/12/23 08:58

Agreed, any critical application data will have to remain on private hardware. Companies simply can't risk data theft or operational negligence. From personal experience IBM's current mainframe strategy is designed to support private cloud computing. Through the use of workload management and multi-tiered storage management, workload can be moved and expanded during peak periods. Through the use of specialty engines the cloud can reduce software licensing expenses.

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Re:Private Cloud Computing

Posted by scarr - 2010/01/08 09:11

Security seems to be the biggest concern when speak about clouds. Now that the FTC is concerned that consumers do not understand the implications of storing their data
in the cloud. The fact that consumer data is now sitting on servers outside of their control, where it can be accessed far more easily by say Google or hackers, and law enforcement agencies than it ever could if kept within
a personal device.

The fact remains that once data passes over a public network it may be easier to access in realtime but this access has a big downside - once it is stored on a remote server it is less secure.

A private cloud may he mitigate this effect.

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Re:Private Cloud Computing

Posted by caragarretson - 2010/01/29 10:55

Just watching video of a keynote given by Vint Cerf (now Chief Internet Evangelist of Google)from last fall. He makes

some interesting points about clouds - plural. There will be a time when a company wants to use more than one cloud (and possibly from a different vendor); how do vendors make their cloud aware of other clouds? How can users tell 'move data from Cloud A to Cloud B' if cloud A doesn't realize there's a cloud B? If you're interested the video is here: http://www.niem.gov/library.php, click on NIEM National Training Event Presentations.

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Re:Private Cloud Computing - What About Regs...

Posted by jmottl - 2010/01/29 15:29

Whenever I hear cloud computing I think security issues as that's been the primary concern voiced by companies, whether we're talking private or using managed services.

But I never thought much about regulations coming into play until I read a pretty interesting report over at Gigaom:

http://gigaom.com/2010/01/28/can-the-cloud-catalyze-change-in-international-data-laws/

The article speaks to how European entities will likely find using US cloud services a bit tough given regulations and how U.S. companies like Microsoft are already lobbying European leader to loosen up the regulatory approach.

Then there's that tricky time zone issue when using services which I didn't think about either until I read this.

Maybe it will take a few more years for cloud computing to really take root.

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Re:Private Cloud Computing - What About Regs...

Posted by sediga - 2010/02/19 09:05

I believe that "cloud" has been around for a number of years now. It has a new name, a new slogan, but it's been here all along.
If you think about it, grid computing, HPC or High-thruput computing have been used and deployed or years. Internal cloud is nothing more than a Grid infrastructure.

SOA and Service-based architectures have been out there for almost two decades.

We have been doing XaaS (something as a service) all along, but I think Cloud is reeling in all of these technologies and techniques under one umbrella and classifying them as "cloud".

What I like to see, however, is the ability to pick and choose vendors or providers on the fly. I want to use one vendor because it is giving me the best QoS, and another because it is the cheapest; both at the same time.

I am hoping that some of the WS-* standards make their way into the XaaS world. We solved a number of these problems related to security, policies, etc with SOA. I am hoping that we don't reinvent the wheel all over again.

That's just my two cents.

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Re:Private Cloud Computing - What About Regs...

Posted by searley - 2010/02/22 11:09

No doubt that there will be many issues to work themselves out if cloud computing goes to the next level. I certainly think that SOA will play a key role in some of the questions on this thread such as Security, "awareness of other clouds", and possibly even the timezone issues. But certainly standards will need to be set and documented.

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Re:Private Cloud Computing - What About Regs...

Posted by caragarretson - 2010/02/22 11:52

...But certainly standards will need to be set and documented.

And adhered to. If the industry segments into one set of cloud vendors supporting one standard and another going a different way, there goes interoperability and we're back where we started.

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Re:Private Cloud Computing

Posted by srw134 - 2010/02/22 17:54

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I agree that "Cloud" computing is getting allot of attention lately when the idea itself is not really new but simply a new term which is fanciful at the current time. When it comes down to it the same issues exist regardless of what you call it. A private cloud is essentially an internal group of servers or server farms which can be controlled internal to the company and thus give better security. A public cloud uses the same technology but is run by a third party. The question always comes down to how much to you trust this person or company.

-sean

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Re:Private Cloud Computing

Posted by searley - 2010/02/25 11:29

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Can someone give me an example of something that IT would "buy" from external cloud computing? To me the only use of external cloud is free or nearly free.

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Re:Private Cloud Computing

Posted by msneubarth@gmail.com - 2010/02/28 18:26

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Stephen,

The most common example of a cloud service is salesforce.com, which provides CRM apps for companies for a fee. Salesforce.com's cloud is usually referred to as software as a service (SaaS).

Amazon.com (Elastic Compute Cloud, or EC2) and Google (Google App Engine) also offer cloud services for a fee. They're called Platform as a Service (Paas). They let you build and run apps on their remote data center servers. Each is different and proprietary. Hence the hubbub over standards.

Microsoft on February 1, 2010, launched Windows Azure cloud service as a paid service.

There's been a cloud price war lately, with vendors cutting prices. Google doesn't charge much, though, or is free.

As you see, there are different flavors of clouds, including Infrastructure as a Service (IaaS).

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Re:Private Cloud Computing

Posted by srw134 - 2010/03/04 15:08

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I for one an quite interested to see the subscription rate of these services with the current bandwidth restrictions of most connections. I definitely see these types of solutions as the future but with such limited bandwidth, access models will have to change considerably for them to work as most people expect them to work currently.

-sean

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Re:Private Cloud Computing

Posted by Bill Wilson - 2010/03/22 15:26

According to a recent post by Mike Neubarth - there really are no provate clounds.. "Ever since the idea of a "private cloud" was introduced, there has been a backlash against the concept, including contention about whether a private cloud is really a cloud."

http://www.ciozone.com/index.php/Cloud-Computing/Are-Private-Clouds-Hogwashu.html

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Re:Private Cloud Computing

Posted by sediga - 2010/03/24 10:45

I agree with this - Private clouds are simply Grids or HPC clusters. Putting the word cloud in front of anything these days seems to make it more appealing. One thing I would like to see with these â€œinternal clouds,â€• however is the capability to spill over to an external cloud when needed.

For example, I want to own 100 CPUâ€™s. I pay and operate my CPUâ€™s. I want to have the capability to spill over to an external IaaS provider if I need more. I want this to happen dynamically; i.e. my scheduling layer to be able to automagically manage this process.

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Re:Private Cloud Computing

Posted by msneubarth@gmail.com - 2010/04/29 09:43

As "Are Private Clouds Hogwash" showed (http://bit.ly/cF7rzo), there is considerable controversy about the legitimacy of private clouds. Since these clouds are based on virtualization, awareness of the downside of virtualization is pertinent. See "Virtualization: Thorns in the Rose Garden" at http://bit.ly/da7QEg

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