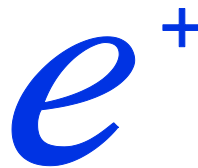




Tips for adopting a private cloud strategy to overcome IT challenges and realize benefits

Many companies have heard the hype around private cloud computing, but some may have a difficult time deciding when the right time is to adopt this technology. This expert e-guide from SearchCloudComputing.com provides insight into what private cloud computing means and how to tell if your company is ready for implementation. Discover the four stages of cloud preparation that are essential to a successful cloud strategy, including acclimation and optimization. Plus, learn how a private cloud poses multiple benefits and challenges for IT management and find out how to lay the foundation for this data center model.

Sponsored By:





Tips for adopting a private cloud strategy to overcome IT challenges and realize benefits

Table of Contents

[Adopting a private cloud strategy](#)

[The challenges and benefits of a private cloud](#)

[Resources from ePlus](#)

Adopting a private cloud strategy

By Lynn Haber, Contributor, SearchCloudComputing.com

Many of us have heard the hype about reaping the benefits of public cloud infrastructures without compromising service levels, security or compliance requirements -- it's called private cloud computing. But when is it the right time for companies to pull the trigger on private cloud without shooting themselves in the foot?

Some industry experts say it's now. They're quick to caution decision-makers, however, that private cloud is a journey, not a destination.

"Private cloud computing isn't something you simply go out and buy; it's an evolution from what we have today," said Tom Bittman, vice president at Gartner.

Furthermore, he adds that the private cloud is a stopgap or stepping stone to utilizing more mature public cloud services when they become available, any time from six months to ten years from now.

Think of private cloud as a new item in the IT toolkit for different economics. Private cloud computing goes beyond virtualization and includes automated workload management, self-service interfaces and some form of usage metering or chargeback. Private cloud computing also requires the ability to share resources to maximize utilization -- among business units, divisions and other groups that may not share resources today -- a change that will affect existing corporate culture, politics, processes and even business relationships.

What is private cloud, and when can I have it?

Forrester defines an internal cloud as a multi-tenant, dynamically provisioned and optimized infrastructure with self-service developer deployment, hosted within the safe confines of the enterprise data center.

Forget about getting started with a big bang. Think of adopting a private cloud strategy as a series of steps that requires that the organization to have the technical pieces in place for

private cloud computing and be experientially and culturally ready. "If a company isn't ready, they can't reap the benefits," said James Staten, analyst at Forrester Research. Taking a more somber tone, Randy Bias, CEO of Cloudscaling.com, a cloud engineering services firm that has designed, built and managed large and complex public and private clouds, said that most organizations don't have the DNA, organizational structure or business incentive to be successful at building a private cloud.

"I think that over the next several years, we're going to see a lot of attempts with the private cloud that will result in failure and misery," he said.

That said, he strongly advises companies working on private cloud initiatives to go into it with their eyes wide open. "Whatever you're building, see it as a short-term goal, not an end goal," he said.

A recent survey of Gartner clients found that 75% of companies expect to pursue private cloud by 2012.

The four stages of private cloud preparation

Every organization considering the private cloud is destined to travel on a maturity journey that industry experts agree consists of a number of stages, from laying the IT infrastructure groundwork to assessing early scenarios for private cloud deployments.

All agree the initial step, IT virtualization maturity, is the essence of evolving to the private cloud. Forrester's Staten outlines four stages of virtualization maturity -- acclimation, strategic consolidation, optimization, and automation -- to assess where your organization is in the process.

The first stage, acclimation, is the time it takes for an organization to learn about virtualization, how it works, test it against simple applications, and then determine where it can safely be applied.

A company is in stage two, strategic consolidation, when its comfort level with virtualization shifts from concept to strategic implementation, having recognized the value proposition of

virtualization as an agent of cost savings and change. "At this point the case has to be made for why a workload should not be virtualized," said Staten.

Stage three, optimization is when virtualization empowers process improvement and organizations get serious about life-cycle management of virtual machines and cleaning up virtual server sprawl. It's at this stage where there must be an experiential shift in thinking about the IT infrastructure. "Thinking in the physical world will hurt you in the virtual world," said Staten.

Companies at stage four of virtualization maturity sit at the precipice of being cloud-ready. These organizations grasp the importance of policy-based automation of the virtualization pool, which, explains Staten, pushes the organization to share services and treat the virtualization pool as an internal cloud service.

Set the stage for your cloud

Inherent in the four steps to virtualization maturity are key elements that set the stage for private cloud computing; namely, a willingness to change the organization and internal processes and gain the political clout to overcome resistance.

Companies who are grounded in stage three are ready to create a greenfield project for private cloud. Experts recommend test and development workloads as a safe place for organizations get their feet wet with private cloud. "It's a good proving ground and learning ground," said Fausto Bernadini, director of IT cloud portfolio services at IBM. Additionally, a greenfield project of non-critical workloads at stage three can help accelerate an organization to stage four.

Private cloud return on investment (ROI) evolves alongside this virtualization maturity path. Ultimately, ROI comes from high utilization of the resources that are dedicated to the private cloud. "The higher the sustained utility of the private cloud, the better the payback," said Staten.

Digging a bit deeper, companies venturing into the private cloud can expect to make big investments in people and processes, as well as new automation and policy enforcement tools.

Unlike the public cloud, where companies can grow and shrink usage (and ultimately costs) based on need, internal private cloud costs are perpetual.



Expedite Your Journey to the Cloud with ePlus

Let ePlus® be your guide to cloud computing. With our eCloud™ offering, we can design a cloud computing strategy tailored specifically to your business, allowing you to:

- + Gain tighter control over security
- + Lower your total cost of ownership
- + Better manage provisioning
- + Improve services orchestration
- + Virtualize and scale your existing applications

For more information, please contact ecloud@eplus.com.

www.eplus.com/cloud

ePlus eCloud Solutions
are built on technology
from:



The challenges and benefits of a private cloud

By Christina Torode, Senior News Writer, SearchCIO.com

SearchCIO.com recently sat down with virtualization and cloud computing expert Mark Bowker, an analyst at The Enterprise Strategy Group Inc. in Milford, Mass., to discuss developing a private cloud -- using the cloud computing concept and virtualization technologies to centralize data center resources and develop the capability to deliver applications and services on the fly as business needs change.

In this interview, Bowker offers insight into CIO and IT management issues with the private cloud. These include what it means for meeting business needs, managing applications and allocating IT costs across the organization, as well as how to lay the foundation for this data center model.

What can an internal cloud do for CIOs trying to meet business needs?

Bowker: From the CIO perspective, they're the ones that own those applications. They're held back by what IT can provide from an infrastructure perspective. If IT can now provide that infrastructure in new ways, such as quickly provisioning new resources or deprovisioning them, they can apply policies based on security or compliance to those resources. To do that in the physical world is pretty costly, but once you start to virtualize everything, I can apply a policy across an IT set of infrastructure or down to particular virtual machines inside that infrastructure.

It seems that pooling resources as the cloud model suggests will change the traditional chargeback model.

Bowker: It totally changes things. To be honest, it still needs to be figured out. The CIO or application owner isn't buying, or responsible for, handing over their requirements on a per physical piece of equipment anymore. Essentially, you'll be drawing from a centralized, shared pool of server, networking and storage resources. So chargeback models will change, and that's something that companies are struggling to try to figure out.

Maybe now I can build an infrastructure that accommodates an on-average usage, knowing that certain times of the year, there will be bursts and we can flexibly add more capacity.

There are departments that own their own servers and applications, and people within IT are responsible for running different aspects of the infrastructure. What's going to happen when they are told that everything's being centralized in the cloud?

Bowker: That is hard. I call those people server huggers. As application owners, they like to go inside the data center and see all the lights flashing and the cables. When you turn that more into a service-led or cloud model, that entirely changes.

The good news is you're getting more flexibility, and you can quickly respond if there is an application request for more storage. With a new data protection policy... where I haven't been able to apply disaster recovery to a set of applications, virtualization turns that on for me. That application or workload is encapsulated. I can make local copies and send them over to a secondary site.

But will longtime server huggers or application owners buy into this new model?

Bowker: The next wave of virtualization or cloud adoption is going to be really driven by the application owners. They need to see the benefit of this more flexible, highly dynamic, highly virtualized environment. They need to see how it affects how they run applications. That's the next wave of adoption, so IT has to be able to explain that to them. The executive level needs to drive the need to the application owner as well... the benefits of running things in the modern data center.

What do you think it will come down to as to why people choose to go forward with an internal cloud strategy?

Bowker: Choice. I think people will have greater choice of how they can run their applications and what they can apply from a service-level agreement standpoint to those applications.

I think it's clearly a reduction in operational costs as well. IT spends so much time supporting and managing what they have in place -- managing routine, mundane tasks. This can automate those tasks and eliminate them and apply more attention to applications and ultimately deliver a much better service to the business.

How can companies start to lay the groundwork for an internal cloud?

Bowker: Implementing server virtualization in production is essentially laying the beginnings of their cloud infrastructure. Many more pieces need to be put in place... much more integration work needs to be done, and some more innovation. People need to keep in mind that in order to make this a reality, that management layer is very important. And what's more interesting is that management across both virtual and physical is going to have to be in place. So it's one thing to say the virtual environment is the future... a lot of IT executives will argue that their physical world is still going to exist for a long time.

Do tools exist yet to bring those two worlds together?

Bowker: It will definitely be hard to bring those two worlds together. It will be a pretty advanced enterprise data center that's going to need that level of management and integration. At that level, I think you'll see the larger data center orchestration vendors step up to do that, like a BEA, Tivoli and Opsware. They need to build the integration between what they're doing and what the virtualization vendors are doing.

Resources from ePlus



[ePlus Enterprise Cloud Computing Solutions](#)

[VMware vCloud Director Solutions from ePlus](#)

[ePlus VMware Solutions Site](#)

About ePlus

ePlus is an experienced IT solutions provider with one of the most mature virtualization practices in the industry. Since virtualization inevitably leads to Cloud Computing, ePlus is uniquely positioned to help customers develop a cloud computing strategy tailored specifically to their short- and long-term business requirements.