The top 5 truths behind what the cloud is not

Separating the noise of what cloud is and what it’s not
It’s clear that the cloud represents the biggest technology disruption since the transition from mainframe to client-server computing. As the industry moves from the PC era to the cloud era, cloud is changing not only how applications, data and IT services are delivered and consumed, but also how the systems that support them are architected and where these systems are deployed.

Despite garnering so much attention and interest in the IT marketplace, the topic of cloud continues to generate a lot of misinformation. As organizations develop their own cloud strategies and learn about the new breed of purpose-built cloud technologies, they need to know what the cloud is. Of equal importance, they need to identify the noise and understand what the cloud is not.

**Five truths about cloud.**
Following are the top misconceptions about cloud and the facts behind the myths.

**Cloud is not a place.**
People often talk about moving to the cloud as if they were moving to another city. But the cloud is not a place. In fact, the cloud can be anywhere, in your datacenter or someone else’s. Organizations that believe a cloud strategy leaves legacy apps and systems behind are in for an awakening.

The single most important way for organizations to prepare themselves for the cloud is to understand that it is a radically new way of delivering, consuming and adopting IT services with far more agility, efficiency and cost-effectiveness than traditional IT approaches. By looking holistically at the cloud as a methodology for IT service delivery, organizations can optimize their strategy to meet budgetary, privacy, geographical and other business needs.
Cloud is not lock-in.
Despite what some hardware and software vendors are pushing, cloud is not about locking you into a single, proprietary, all-in-one solution. In contrast, cloud should bring you the flexibility to choose the best virtualization, networking and storage solutions and hardware for your requirements. To that end, clouds need to be both open and open source.

An open, no-lock-in architecture allows you to run multiple hypervisors, adopt different networking and storage topologies and support industry standards such as the Amazon Web Services™ API. Open source software means you can add valuable, differentiated intellectual property to the cloud and incorporate a broad array of solutions from the massive and growing ecosystem of cloud partners and community enthusiasts.

Cloud is not server virtualization.
Despite what many believe and what many will tell you, the cloud is not the same as next-gen server virtualization. Many IT teams believe by virtualizing the datacenter they will create a private cloud. However, although server virtualization can be an important ingredient in a cloud, it is not a required component.

Some of the leading cloud organizations have implemented massive cloud deployments without server virtualization. Take Google, for example, which deployed a cloud architecture that does not use server virtualization, but rather a bare-metal infrastructure.

Also, if you take a look at the way Amazon has built its cloud architecture, it becomes very clear that there are some stark differences between a server virtualization environment and a true cloud architecture. While Amazon starts with Xen® virtualization technology, the real brains of its architecture are found in a new layer of software that the company built. This control plane is a cloud orchestration layer that can manage all the infrastructure resources (compute, storage, networking) across all Amazon datacenters and is at the heart of the cloud’s technology disruption. Some analysts refer to it as the “hypervisor of hypervisors,” or a “new software category of cloud system software.” So while cloud is not server virtualization, it is a new way to provision, manage and orchestrate infrastructure resources across a datacenter.

Cloud is not an island.
You have likely heard a lot about public versus private clouds and may believe you must make an either/or decision on your strategy. Cloud providers too, might be asking what kind of cloud they should build for their customers.

The cloud is not an island. It is not a place where you put all of your IT services and then lose all interconnectivity and access. The right cloud strategy enables a hybrid approach that selects the best of public and private cloud technologies. A hybrid approach provides the flexibility to assign specific workloads to private or public clouds, and choose the provider that best fits your needs for each workload.
Cloud is not top-down.

The cloud has up-ended the traditional IT-centric approach to delivering services. For example, individual business units have been leading the charge by making the decision to move to cloud computing. They are taking the initiative in consuming cloud services to avoid the rigidity of traditional IT processes, which can interfere with agility and speed.

The reality is that with the simple swipe of a credit card and the creation of an account, users can gain instant access to infinite pools of IT resources to help test out a new idea, launch a new campaign or become more agile in their daily work. This is part of why the cloud revolution is so powerful and consumerization of IT is only helping to accelerate movement. Users are already there and many C-level executives are now trying to catch up. Those that embrace the cloud sooner rather than later will gain increased business agility and innovation before their competitors do. For these reasons, cloud is a bottoms-up phenomenon.

Rewriting the cloud story.

Many organizations are still skeptical about the cloud, due in part to current misinformation and confusion about its nature and attributes. The reality is that the cloud is real, it’s ready now and it’s not necessarily what many think it is. To recap:

Cloud is not a place. It’s a more agile and efficient method of delivering IT services.

Cloud is not lock-in. It’s about openness and open source for choice and flexibility.

Cloud is not server virtualization. It’s a new breed of purpose-built cloud architectures.

Cloud is not an island. It’s a holistic strategy that spans and connects private and public clouds.

Cloud is not top-down. It’s being driven from the bottom up by innovative and agile users.

Apply these new cloud definitions and learn from others who have already built highly scalable, successful clouds as you devise your organization’s cloud strategy and build new cloud solutions. Major cloud providers around the globe, such as SoftLayer and Tata Communications, have built highly successful Infrastructure as a Service clouds. Web 2.0 companies such as Zynga and Netflix are running their core business services in the cloud. Enterprise organizations including Bechtel, University of Hokkaido and Chatham Financial have built highly scalable and successful clouds. Along the way, these cloud pioneers have learned exactly what cloud is and what it is not.

Citrix is helping cloud leaders like these build their cloud infrastructure and their cloud business. Let’s work together to build a solution that’s right for you.

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